

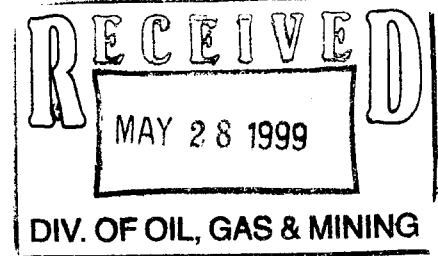
m/021/004

CLIFFORD V. DUNN
ATTORNEY AND COUNSELOR AT LAW
P. O. BOX 2318
ST. GEORGE, UTAH 84771-2318
(435) 628-5405

RECEIVED

MAY 03 1999 FAX: (435) 628-4145
99.01818
Division of Solid & Hazardous Waste
Utah Department of Environmental Quality

April 28, 1999



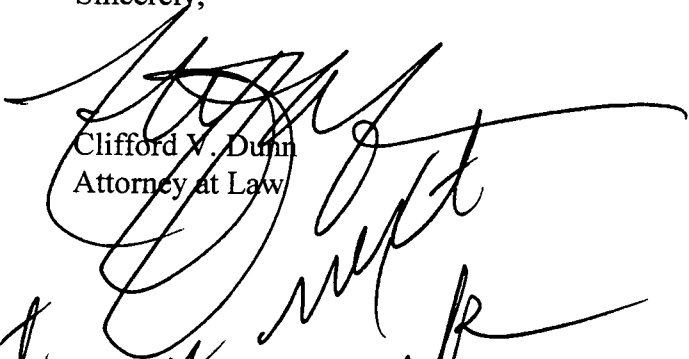
State of Utah
Department of Environmental Quality
Division of Solid and Hazardous Waste
Attn: Doug Taylor
P. O. Box 144880
Salt Lake City, UT 84114-4880

RE: Former Hecla Escalante Unit Facility

Dear Mr. Taylor:

Enclosed is a complete copy of the sampling test results from Kleinfelder, regarding the above-referenced site. If you have any questions or concerns, don't hesitate to contact me.

Sincerely,


Clifford V. Dunn
Attorney at Law

CVD/jp

Enclosures

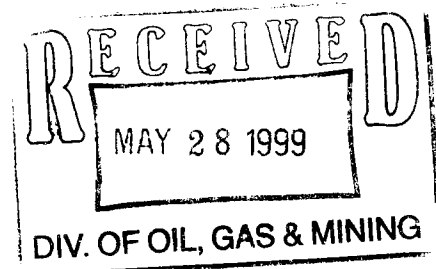
I will be in contact w/ you next week



KLEINFELDER

An employee owned company

January 22, 1999
Project No. 35-315201



Mr. Jason Pauley
Dixie Cable Services
31 North 700 East, Suite 223
St. George, Utah 84770

**Subject: Confirmation Sampling Results
Former Hecla Escalante Unit Facility
Enterprise, Utah**

Dear Mr. Pauley:

This letter report and accompanying attachments present the results of environmental sampling activities conducted at the above-referenced facility by Kleinfelder, Inc. The purpose of the sampling program was to provide data on the effectiveness of various clean-up activities that have been ongoing at the site since September, 1998. The property is comprised of about 245 acres and includes several buildings, above ground tanks, and staging areas. The facility is located in Iron County about seven miles north of Enterprise, Utah, and is no longer operated by Hecla.

BACKGROUND

Kleinfelder was retained by Dixie Cable Services to provide environmental engineering services at the former Hecla Escalante facility. Our services included sampling of surface soil and exposed working surfaces in and around the now-inactive concentrator building and laboratory building both during and following site clean up activities. The site cleanup has been conducted by Dixie Cable Services personnel to meet requirements of Hecla Mining Company (the present site owner) prior to transferring ownership of the property. Kleinfelder's services were performed as outlined in our proposal¹. The following sections describe the sampling activities and summarize the sampling results.

¹ "Proposal For Confirmation Soil Sampling and Analysis"; Kleinfelder Proposal No. 35-YPE105, August 27, 1998.

SCOPE OF SERVICES

Kleinfelder personnel conducted two separate sampling events at the property during and following various site cleanup activities; samples were collected on October 27, 1998, and again on December 15, 1998. Sampled media included surface soils (i.e., soil from the surface to about six inches in depth) and exposed equipment, floor, and wall surfaces inside the main concentrator building and laboratory building. Specifically, the project tasks included the following:

Initial Site Reconnaissance of the Hecla Escalante Unit Property

A walk-through of the property was conducted by Kleinfelder, Inc. on October 27, 1998, (prior to collecting the first round of samples) to prioritize soil and wipe sample locations. At the time of our site reconnaissance, it was noted that some clean up activities had been completed by Dixie Cable Services personnel, including soil removal and replacement at some areas around the laboratory and concentrator buildings and initial sediment removal inside the concentrator building.

Sampling of Site and Facilities

As discussed previously, two rounds of sampling were conducted at the site. Since the focus of the sampling activities was on the processes used at the former milling operation (the area of the site cleanup), no samples were collected from the Hecla property not in proximity to the concentrator and laboratory buildings.

The first round of soil and wipe sampling was conducted on October 27, 1998, at which time a total of 19 soil samples and 8 wipe samples were collected. These samples included two "background" soil samples, one blind duplicate soil sample, and one blank wipe sample. The sample locations were chosen based on *judgmental* techniques (i.e., areas judged to be the most likely locations to have been impacted by spills, disposal, storage and processing operations, etc).

Surface soil samples were collected by removing the top (approximately) one inch of loose soil from the sampling location and collecting a grab sample of the soil exposed below this top layer with a sampling tool. Samples were generally collected from about two to four inches below the

ground surface. The collected soil was placed into glass sample jars obtained from the laboratory subcontractor. The filled sample jars were labeled and placed immediately into an ice-chilled cooler to maintain the samples at about four degrees Centigrade.

Wipe samples were collected by wetting a sterile cotton bandage with commercially available distilled water and wiping a measured area of the sampled surface (e.g., wall segment, floor, equipment surface) with the moistened wipe. Each wipe sample was collected from a surface area of approximately 16 square inches (about 103 square centimeters).

At the time of the first sampling event on October 27, 1998, some site cleanup operations had been completed around the exteriors of the concentrator and laboratory buildings as noted above. Cleanup activities were still ongoing, however, and the decision was made by Dixie Cable personnel to proceed with the site sampling to provide an indication of the effectiveness of the cleanup operation to date and the level of effort that would be required to complete the cleanup.

Based on the results from the first sampling round, a second round of sampling was conducted by Kleinfelder on December 15, 1998, at which time an additional nine soil samples and six wipe samples were collected. These samples included one background soil sample and one blank wipe sample. The sampled locations corresponded to those sampled during the first sampling event that had indicated high concentrations of the contaminants of concern. Sampling techniques were identical to those employed during the first sampling event.

The samples collected during both rounds of sampling at the site were submitted to American West Analytical Laboratory of Salt Lake City, Utah. Soil and wipe samples were analyzed for the eight "hazardous waste" metals (arsenic, barium, cadmium, chromium, lead, selenium, silver, and mercury) and total cyanide. In addition, selected soil samples were analyzed for the petroleum constituents total petroleum hydrocarbons (TPH); benzene, ethylbenzene, toluene, total xylenes, and naphthalene (BTEXN); and oil and grease (TRPH).

Documentation of Site Cleanup Activities at Selected Areas

A third visit was made to the Escalante Unit site by Kleinfelder, Inc., personnel on January 12, 1999. The purpose of this visit was to observe and document cleanup results in areas that had shown relatively high concentrations of contaminants during the previous sampling visits, but

that had not been resampled because of the removal or ongoing clean up of the contaminated medium; e.g., collected sediment and/or runoff water. Photographs were taken of these areas to provide documentation of the cleanup activities. Selected site photographs from this visit have been included with this report as Attachment A.

By the time of the second sampling event (December 15, 1998), site cleanup operations had been essentially completed. Additional soil removal and replacement had been completed, including removal of saturated soils and sediment from an external holding sump containing several process tanks ("pauchucas"). Also, removal of sediment from around the exteriors of the thickener tanks on the west side of the concentrator building had been completed as well as high-pressure cleaning of the concentrator building interior surfaces.

SAMPLING RESULTS SUMMARY

The results of the soil and wipe sampling are summarized in Tables 1 and 2, respectively (on the following pages). In addition, copies of the analytical laboratory reports and chain-of-custody forms for the submitted samples from both sampling visits are included with this document as Attachment B.

Soil Sampling Summary

As shown on Table 1, results of the soil samples collected during the first sampling event on October 27, 1998, indicate that substantial concentrations of metals were present in the shallow site soils at the locations sampled by Kleinfelder (i.e., locations prioritized as those with the most potential to collect and retain contaminants). With the exception of sediment that had collected near the process tanks west of the concentrator building and sediment and filter residue inside the concentrator building, the soil samples from the first sampling round indicated that cyanide was not present above the Hecla-required limits.

TABLE 1
Soil Analytical Results Summary - Hecla Escalante Unit Confirmation Sampling
RCRA D-List Metals, Cyanide, and TRPH
October 27 and December 15, 1998

| Sample I.D. | Date Collected | Sample Location (depth) | Arsenic (mg/kg) | Barium (mg/kg) | Cadmium (mg/kg) | Chromium (mg/kg) | Lead (mg/kg) | Mercury (mg/kg) | Selenium (mg/kg) | Silver (mg/kg) | TRPH (mg/kg) | Cyanide (mg/kg) |
|---------------------|----------------|---|-----------------|----------------|-----------------|------------------|--------------|-----------------|------------------|----------------|--------------|-----------------|
| DCBG-1 (Background) | 10/27/98 | 150' NE of Transformer Station (1-3") | 8.0 | 430 | 1.0 | 11 | 75 | 0.050 | < 1.0 | 1.4 | N/A * | N/A |
| DCBG-2 (Background) | 10/27/98 | East Fenceline - 100 feet south of gate (1-3") | 10 | 330 | 0.90 | 12 | 100 | 0.040 | < 1.0 | 2.7 | N/A | N/A |
| DCBG-3 (Background) | 12/15/98 | Approx. 100 yds east of SE perimeter gate | 4.7 | 180 | 0.40 | 13 | 22 | < 0.04 | < 0.1 | < 0.5 | N/A | < 0.05 |
| DCS-1 | 10/27/98 | East wall lab bldg. - (1-3") | 69 | 660 | 3.8 | 120 | 1200 | 0.17 | 1.0 | 27 | N/A | 0.23 |
| DCS2-1 | 12/15/98 | East wall lab bldg. - (1-3") | 9.3 | 470 | 1.0 | 7.5 | 91 | < 0.04 | < 0.1 | 3.5 | N/A | 0.20 |
| DCS-2 | 10/27/98 | North wall lab bldg. - near blower vent (1-3") | 420 | 2200 | 22 | 21 | 2700 | 0.99 | 9.0 | 55 | N/A | 16 |
| DCS2-2 | 12/15/98 | North wall lab bldg. - near blower vent (1-3") | 24 | 840 | 3.5 | 9.6 | 350 | 0.060 | 1.9 | 33 | N/A | 5.8 |
| DCS-3 | 10/27/98 | Roof downspout outfall (1-3") | 70 | 930 | 5.6 | 12 | 410 | 1.0 | 5.0 | 52 | N/A | 0.66 |
| DCS2-3 | 12/15/98 | Roof downspout outfall (1-3") | 26 | 750 | 5.6 | 10 | 330 | 0.050 | < 0.1 | 7.2 | N/A | 0.49 |
| DCS-4 | 10/27/98 | South of main cyclone vent stack (7-9") | 24 | 1100 | 1.5 | 7.2 | 220 | < 0.04 | < 1.0 | 3.1 | < 50 | 0.28 |
| DCS2-4 | 12/15/98 | South of main cyclone vent stack (2-4") | 21 | 1100 | 2.6 | 9.9 | 280 | 0.10 | 0.20 | 5.8 | N/A | 0.56 |
| DCS-5 | 10/27/98 | NW corner concentrator bldg. (1-2") | 150 | 2200 | 15 | 28 | 2500 | 0.11 | < 1.0 | 30 | < 50 | 40 |
| DCS2-5 | 12/15/98 | NW corner concentrator bldg. (1-3") | 29 | 930 | 3.0 | 14 | 390 | < 0.04 | < 0.1 | 12 | N/A | 1.1 |
| DCS-6 | 10/27/98 | 110' SE of conc. Bldg. - equip. storage area (2-4") | 150 | 1500 | 6.3 | 10 | 930 | 0.080 | 1.0 | 20 | < 50 | 0.95 |
| DCS2-6 | 12/15/98 | 110' SE of conc. Bldg. - equip. storage area (2-4") | 35 | 790 | 5.9 | 8.9 | 440 | < 0.04 | 0.20 | 10 | N/A | 0.88 |
| DCS-7 | 10/27/98 | East side of previous dock south of concent. Bldg. (1-3") | 1600 | 1900 | 96 | 23 | 16,000 | 0.48 | < 1.0 | 23 | N/A | 24 |
| DCS2-7 | 12/15/98 | East side of previous dock south of concent. Bldg. (1-3") | 2.6 | 250 | 0.30 | 8.2 | 9.0 | < 0.04 | < 0.1 | 0.60 | N/A | < 0.05 |

TABLE 1 - Continued
Soil Analytical Results Summary - Hecla Escalante Unit Confirmation Sampling
RCRA D-List Metals, Cyanide, and TRPH
October 27 and December 15, 1998

| Sample ID | Date Collected | Sample Location (depth) | Arsenic (mg/kg) | Barium (mg/kg) | Cadmium (mg/kg) | Chromium (mg/kg) | Lead (mg/kg) | Mercury (mg/kg) | Selenium (mg/kg) | Silver (mg/kg) | TRPH (mg/kg) | Cyanide (mg/kg) |
|----------------------------|----------------|--|-----------------|----------------|-----------------|------------------|--------------|-----------------|------------------|----------------|-----------------|-----------------|
| DCS-8 | 10/27/98 | Blind duplicate of DCS-7 | 1400 | 1500 | 120 | 10 | 15,000 | 0.48 | < 1.0 | 28 | N/A | 39 |
| DCS-9 | 10/27/98 | Pauchuca vault basin sediment - south side | 730 | 3900 | 34 | 29 | 5500 | 0.28 | < 1.0 | 17 | N/A | 1.6 |
| DCS-10 | 10/27/98 | Pauchuca vault basin sediment - central | 840 | 3700 | 41 | 20 | 6200 | 0.30 | < 1.0 | 21 | N/A | 81 |
| DCS-11 | 10/27/98 | Basin sediment - north of Pauchuca vault | 97 | 590 | 4.1 | 10 | 700 | < 0.04 | < 1.0 | 8.3 | N/A | 18 |
| DCS-12 | 10/27/98 | North side thickener tank - runoff/ore mix (1-3") | 140 | 3200 | 47 | 16 | 8500 | 0.25 | < 1.0 | 29 | 60 | 19 |
| DCS-13 | 12/15/98 | North side thickener tank - runoff/ore mix (1-3") | 100 | 1500 | 10 | 12 | 1600 | 0.080 | < 0.1 | 18 | N/A | 11 |
| DCS-14 | 10/27/98 | Soil/ore mix near thickener (1-3") | 340 | 3800 | 59 | 17 | 8300 | 0.34 | < 1.0 | 38 | 50 | 120 |
| DCS-15 | 10/27/98 | Soil/ore mix near thickener (1-3") | 310 | 3500 | 35 | 17 | 6500 | 0.17 | < 1.0 | 14 | 150 | 75 |
| DCS-16 | 10/27/98 | Waste pile composite - petroleum-impacted soil | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 1000 | N/A |
| DCS-17 | 10/27/98 | Collected sediment inside concent. bldg. - south of elec. room | 200 | 3000 | 24 | 100 | 8000 | 1.9 | 2.0 | 53 | 160 | 580 |
| DCS-18 | 10/27/98 | Drum filter residue inside concentrator bldg. | 490 | 3100 | 24 | 72 | 3700 | 0.49 | < 1.0 | 5.8 | N/A | 640 |
| Hecla Required Soil Limits | | | 100 | 2000 | 20 | 100 | 100 | 4 | 20 | 100 | Not Established | 50 |

Results in bold exceed Hecla contract-stipulated limits for the respective analytes.
Note: All soil sample results are on a dry-weight basis.

* N/A = Not Analyzed



Table 2
Wipe Sample Analytical Results Summary - Hecla Escalante Unit Lab and Concentrator Buildings
RCRA D-List Metals and Cyanide (Milligrams/Sample)
October 27 and December 15, 1998

| Sample I.D. | Date Sampled | Sample Location (sampled area) | Arsenic | Barium | Cadmium | Chromium | Lead | Mercury | Selenium | Silver | Cyanide |
|-------------|--------------|--|---------|--------|---------|----------|--------|----------|----------|--------|---------|
| DCW-1 | 10/27/98 | Lab building - floor next to main vent hood in processing room (16 in ²) | 7.5 | 7.4 | 0.050 | 0.060 | 6.2 | < 0.003 | 0.90 | 1.7 | 4.7 |
| DCW-2 | 10/27/98 | Acid leach room wall (16 in ²) | 1.9 | 1.0 | 0.040 | < 0.05 | 0.60 | 0.18 | 3.2 | 0.56 | 140 |
| DCW2-1 | 12/15/98 | Acid leach room wall (16 in ²) | 0.0090 | 0.056 | 0.011 | < 0.01 | 0.19 | 0.0013 | 0.0060 | 1.8 | 1.2 |
| DCW-3 | 10/27/98 | SE corner bullion room (16 in ²) | 3.0 | 1.0 | 0.33 | < 0.05 | 1.5 | 0.030 | 22 | 9.5 | 150 |
| DCW2-2 | 12/15/98 | SE corner bullion room (16 in ²) | 0.012 | 0.22 | 0.028 | < 0.01 | 0.27 | 0.0015 | 0.055 | 2.9 | 4.7 |
| DCW-4 | 10/27/98 | Refinery press room - E/W floor drain (16 in ²) | 8.0 | 3.5 | 0.10 | 0.10 | 5.7 | 0.020 | 1.9 | 37 | 1200 |
| DCW2-3 | 12/15/98 | Refinery press room - E/W floor drain (16 in ²) | 0.097 | 0.16 | 0.068 | 0.030 | 3.0 | 0.0088 | 0.058 | 18 | 69 |
| DCW-5 | 10/27/98 | Southern cyanide mix tank - exterior wall (16 in ²) | 12 | 15 | 0.050 | 0.14 | 10 | < 0.003 | 0.10 | 0.34 | 350 |
| DCW2-4 | 12/15/98 | Southern cyanide mix tank - exterior wall (16 in ²) | < 0.005 | 0.038 | < 0.004 | < 0.01 | < 0.05 | < 0.0002 | < 0.005 | 0.010 | 6.2 |
| DCW-6 | 10/27/98 | Floor near cyanide addition port - 3rd level (16 in ²) | 12 | 13 | 0.050 | 0.16 | 10 | < 0.003 | 0.38 | 0.18 | 190 |
| DCW2-5 | 12/15/98 | Floor near cyanide addition port - 3rd level (16 in ²) | 0.026 | 0.41 | 0.70 | < 0.01 | 0.35 | < 0.0002 | < 0.005 | 1.3 | 5.5 |
| DCW-7 | 10/27/98 | Main floor near rest room (16 in ²) | 3.5 | 1.3 | < 0.02 | < 0.05 | 0.80 | < 0.003 | 0.15 | 0.18 | 31 |
| Blank 1 | 10/27/98 | Distilled water blank | 0.14 | < 0.05 | < 0.02 | < 0.05 | < 0.3 | < 0.003 | 0.070 | < 0.05 | 29 |
| Blank 2 | 12/15/98 | Distilled water blank | 0.14 | < 0.05 | < 0.02 | < 0.05 | < 0.3 | < 0.003 | 0.070 | < 0.05 | < 0.005 |

Note: All wipe sample results (except blanks) are based on a sampled area of 16 in² (103 cm²).

Sampling results from the second sampling visit on December 15, 1998, indicate that clean-up activities at the site have been effective in substantially reducing the levels of RCRA metals and cyanide present in the soil at the sampled locations. Almost all of the metals concentrations showed significant decreases in the second round of soil samples collected from near the laboratory and concentrator buildings. Concentrations of all metals except lead were below the required limits for those analytes. However, lead concentrations at 6 of the resampled locations remained above 100 mg/kg even though all samples showed significant decreases in lead concentrations. The lead concentrations in 5 of the 6 samples that were above 100 mg/kg correspond to locations where *in situ* soil had been removed and replaced with crushed rock transported from another site. These lead concentrations, ranging from 280 to 440 mg/kg, are indicative of lead concentrations present in this imported product and not from Hecla operations.

Cyanide results from the second round of soil samples also showed that concentrations of this analyte were substantially lower than during the first round of sampling in October. No cyanide concentrations from the second sampling event exceeded the Hecla contract-required soil limit of 50 mg/kg.

Results of the oil and grease (TRPH) analyses from the first sampling event showed concentrations above the method detection limit only in those samples collected from around the storage and process tanks on the west side of the concentrator building (samples DCS-12, 13, and 14) and from collected sediment inside the building (sample DCS-16). These locations were not resampled during the second sampling event because the particular medium sampled had been removed from the sampled locations during site clean up activities in the interim.

Wipe Sampling Summary

Results of the two rounds of wipe sampling inside the concentrator and lab buildings indicate that the clean up activities carried out between the two sampling events were effective in substantially lowering the concentrations of both metals and cyanide on the exposed working surfaces inside the concentrator building. Reductions in concentrations of metals and cyanide of approximately one to two orders of magnitude were achieved during the clean up activities. This data is reinforced by field observations made during

sampling that the amount of loading on the individual wipe samples was substantially lower during the second sampling round as compared to the first.

At the present time, very little guidance exists regarding the interpretation of wipe sample analytical results, with the exception of polychlorinated biphenyls (PCBs). Wipe sampling is generally used to assess only the presence or absence of any given analyte(s). Because of this lack of established criteria, the wipe samples were collected mainly to provide an indication of the qualitative effectiveness of site cleaning operations. Comparing the results from the first sampling visit with those from the second visit allowed an assessment of whether or not cleaning activities were successful in removing contaminants from the working surfaces.

The single wipe sample collected inside the laboratory building during the first sampling event in October 1998 did not show significant concentrations of metals or cyanide. Because of this, that location was not resampled during the second sampling visit in December.

CONCLUSIONS

Results of our soil and wipe sampling at the Hecla Escalante Unit indicate that former processing operations at the silver mining and milling facility had impacted surface soils and exposed surfaces inside and near the concentrator building. The expected contaminants of concern, as defined by materials used and stored at the former operation, were metals and cyanide.

A comparison of the results from both rounds of sampling indicate that the soil cleanup activities appear to have been effective in reducing the concentrations of contaminants in the site surface soils below the Hecla-required limits. Metal and cyanide contaminants were detected in elevated concentrations in the majority of samples collected during the first round of sampling on October 27, 1998. Testing of follow-up samples collected on December 15, 1998 showed a significant decrease in contaminant concentrations. Also, results of the wipe sampling conducted inside the building interiors indicate that clean up activities significantly reduced the presence of metals and cyanide on exposed working surfaces there.

LIMITATIONS

The data and interpretations contained in this summary letter report have been presented in accordance with generally accepted standards of care which currently exist within the industry in this geographic region at this time. It should be recognized that the definition and evaluation of contaminated soil and industrial health conditions is a difficult and inexact science. Judgments leading to conclusions and recommendations are generally made with an incomplete knowledge of the subsurface and/or historic conditions applicable to the site. More detailed, focused and/or extensive studies including additional assessments can tend to reduce the inherent uncertainties associated with evaluation of environmental conditions. This report is for the sole use of Dixie Cable Services of St. George, Utah. No warranty, expressed or implied, is made.

It has been a pleasure working with Dixie Cable Services on this project. If you have any questions or comments concerning this letter or the project, please contact us at (435) 628-5231.

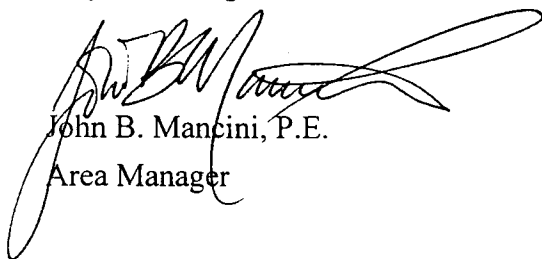
Sincerely,

KLEINFELDER, INC.



Daniel C. Krupicka, P.G.

Project Geologist



John B. Mancini, P.E.

Area Manager

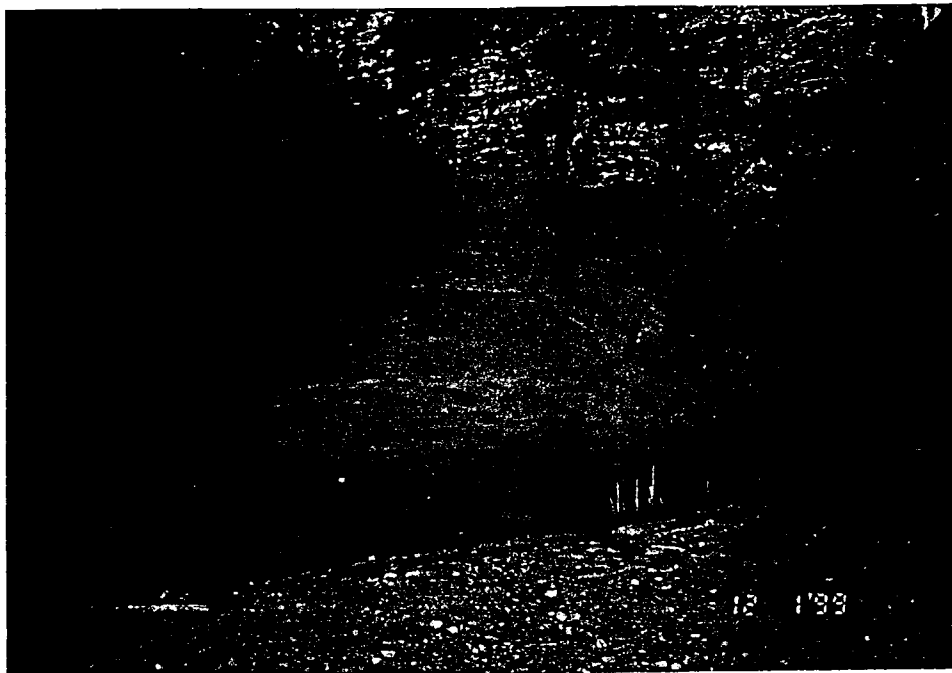
DCK:JBM:ld

Attachment A: Site Photographs

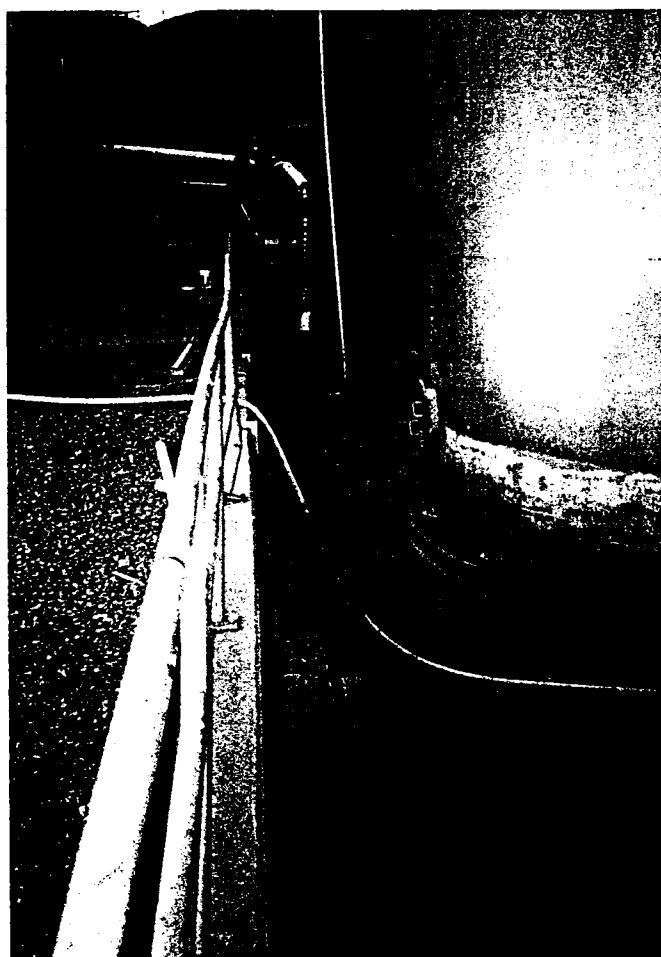
Attachment B: Laboratory Reports and Chain of Custody Forms

ATTACHMENT A

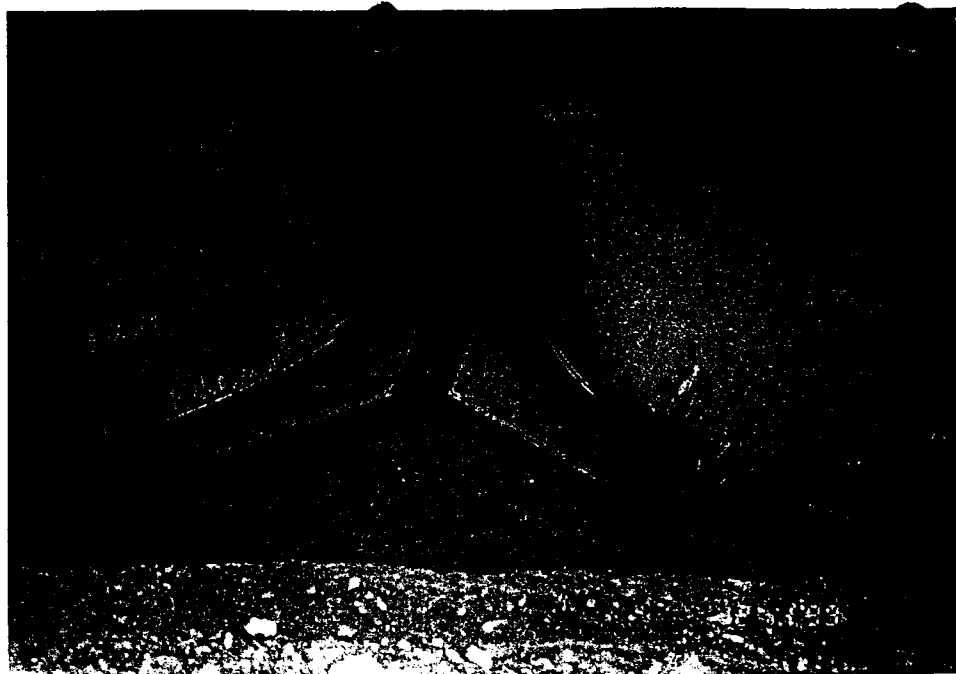
SEE PHOTOGRAPHS



North End of Pauchuca Sump Following Clean Up

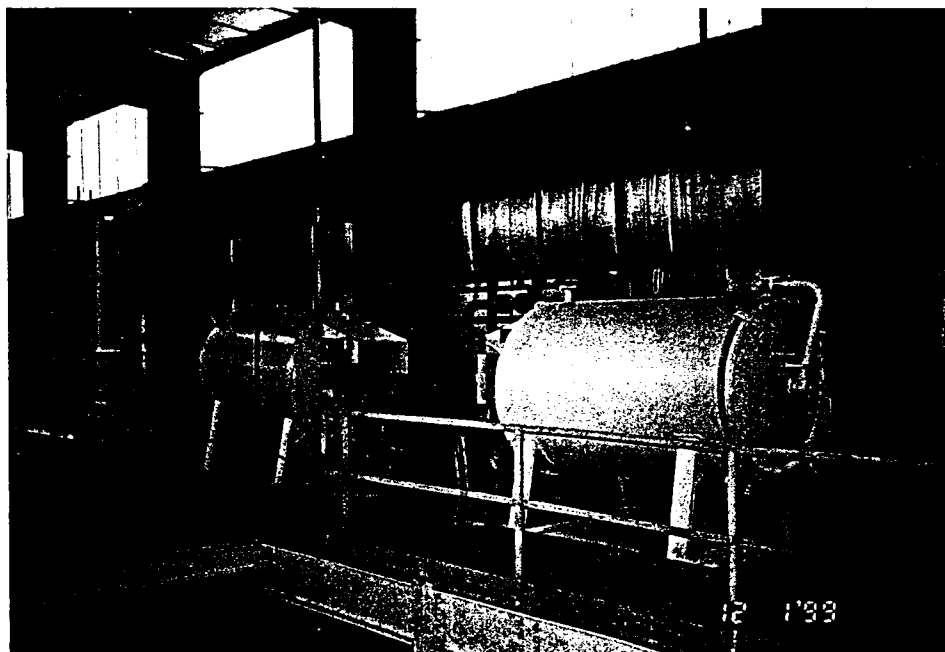


Pauchuca Tanks and Containment Basin After Cleaning



Thickener Tank(s) Basin After Cleaning

Stockpile of Milled Material For
Future Reclamation



Recently Painted Equipment
Inside Concentrator Building

(HECLA)
LABORATORY
ANALYTICAL
DATA SHEETS

M/021/004

ATTACHMENT B

LABORATORY REPORTS AND CHAIN-OF-CUSTODY FORMS

SOIL AND WIPE SAMPLES

Sampling station

Volume of air



ORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: October 27, 1998
Date Received: October 29, 1998

Contact: Dan Krupicka
Date Extracted: November 07, 1998
Date Analyzed: November 07, 1998

AMERICAN
WEST
ANALYTICAL
LABORATORIES

Analysis Requested:
Total Recoverable Petroleum
Hydrocarbons

Method Ref. Number:
EPA 1664 (Gravimetric
Silica Gel Treated)

Field Sample ID:
DIXIE CABLE/ESCALANTE MINE SAMPL/35-3152-01
DCS-4

Lab Sample ID:
L35101-6

463 West 3600 South
Salt Lake City, Utah
84115

Analytical Results

TRPH

Units = mg/kg(ppm)

Compound:

Reporting
Limit:

Amount
Detected:

Total Recoverable Petroleum Hydrocarbons

50.

< 50.

(801) 263-8686
Toll Free (888) 263-8686
Fax (801) 263-8687

Released By:

Laboratory Supervisor

Report Date: November 09, 1998

1 of 1



ORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: October 27, 1998
Date Received: October 29, 1998

Contact: Dan Krupicka
Date Extracted: November 07, 1998
Date Analyzed: November 07, 1998

AMERICAN
WEST
ANALYTICAL
LABORATORIES

Analysis Requested:
Total Recoverable Petroleum
Hydrocarbons

Method Ref. Number:
EPA 1664 (Gravimetric
Silica Gel Treated)

Field Sample ID:
DIXIE CABLE/ESCALANTE MINE SAMPL/35-3152-01
DCS-5

Lab Sample ID:
L35101-7

463 West 3600 South
Salt Lake City, Utah
84115

Analytical Results

TRPH

Units = mg/kg(ppm)

Compound:

Reporting
Limit:

Amount
Detected:

Total Recoverable Petroleum Hydrocarbons

50.

< 50.

(801) 263-8686
Toll Free (888) 263-8686
Fax (801) 263-8687

Released By: _____

RL
Laboratory Supervisor

Report Date: November 09, 1998

1 of 1



ORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: October 27, 1998
Date Received: October 29, 1998

Contact: Dan Krupicka
Date Extracted: November 07, 1998
Date Analyzed: November 07, 1998

AMERICAN
WEST
ANALYTICAL
LABORATORIES

Analysis Requested:
Total Recoverable Petroleum
Hydrocarbons

Method Ref. Number:
EPA 1664 (Gravimetric
Silica Gel Treated)

Field Sample ID:
DIXIE CABLE/ESCALANTE MINE SAMPL/35-3152-01
DCS-6

Lab Sample ID:
L35101-8

Analytical Results

TRPH

463 West 3600 South
Salt Lake City, Utah
84115

Units = mg/kg(ppm)

Compound:

Reporting
Limit:

Amount
Detected:

Total Recoverable Petroleum Hydrocarbons

50.

< 50.

(801) 263-8686
Toll Free (888) 263-8686
Fax (801) 263-8687

Released By:

Laboratory Supervisor

Report Date: November 09, 1998

1 of 1



ORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: October 27, 1998
Date Received: October 29, 1998

Contact: Dan Krupicka
Date Extracted: November 07, 1998
Date Analyzed: November 07, 1998

AMERICAN
WEST
ANALYTICAL
LABORATORIES

Analysis Requested:
Total Recoverable Petroleum
Hydrocarbons

Method Ref. Number:
EPA 1664 (Gravimetric
Silica Gel Treated)

Field Sample ID:
DIXIE CABLE/ESCALANTE MINE SAMPL/35-3152-01
DCS-12

Lab Sample ID:
L35101-14

Analytical Results

TRPH

463 West 3600 South
Salt Lake City, Utah
84115

Units = mg/kg(ppm)

Compound:

Reporting
Limit:

Amount
Detected:

Total Recoverable Petroleum Hydrocarbons

50.

60.

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Released By: _____

PLM
Laboratory Supervisor

Report Date: November 09, 1998

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ORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: October 27, 1998
Date Received: October 29, 1998

Contact: Dan Krupicka
Date Extracted: November 17, 1998
Date Analyzed: November 17, 1998

AMERICAN
WEST
ANALYTICAL
LABORATORIES

Analysis Requested:
Total Recoverable Petroleum
Hydrocarbons

Method Ref. Number:
EPA 1664 (Gravimetric
Silica Gel Treated)

Field Sample ID:
DIXIE CABLE/ESCALANTE MINE SAMPL/35-3152-01
DCS-13

Lab Sample ID:
L35101-15

463 West 3600 South
Salt Lake City, Utah
84115

Analytical Results

TRPH

Units = mg/kg(ppm)

Compound:

Reporting
Limit:

Amount
Detected:

Total Recoverable Petroleum Hydrocarbons

50.

50.

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Released By: *PLT*

Laboratory Supervisor

Report Date: November 09, 1998

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ORGANIC ANALYSIS REPORT

AMERICAN
WEST
ANALYTICAL
LABORATORIES

Client: Kleinfelder-St. George
Date Sampled: October 27, 1998
Date Received: October 29, 1998

Contact: Dan Krupicka
Date Extracted: November 07, 1998
Date Analyzed: November 07, 1998

Analysis Requested:
Total Recoverable Petroleum
Hydrocarbons

Method Ref. Number:
EPA 1664 (Gravimetric
Silica Gel Treated)

Field Sample ID:
DIXIE CABLE/ESCALANTE MINE SAMPL/35-3152-01
DCS-14

Lab Sample ID:
L35101-16

Analytical Results

TRPH

463 West 3600 South
Salt Lake City, Utah
84115

Units = mg/kg(ppm)

Compound:

Reporting
Limit:

Amount
Detected:

Total Recoverable Petroleum Hydrocarbons

50.

150.

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P. M. T.
Laboratory Supervisor

Report Date: November 09, 1998

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ORGANIC ANALYSIS REPORT

AMERICAN
WEST
ANALYTICAL
LABORATORIES

Client: Kleinfelder-St. George
Date Sampled: October 27, 1998
Date Received: October 29, 1998

Contact: Dan Krupicka
Date Extracted: November 07, 1998
Date Analyzed: November 07, 1998

Analysis Requested:
Total Recoverable Petroleum
Hydrocarbons

Method Ref. Number:
EPA 1664 (Gravimetric
Silica Gel Treated)

Field Sample ID:
DIXIE CABLE/ESCALANTE MINE SAMPL/35-3152-01
DCS-15

Lab Sample ID:
L35101-17

463 West 3600 South
Salt Lake City, Utah
84115

Analytical Results

TRPH

Units = mg/kg(ppm)

Compound:

Reporting
Limit:

Amount
Detected:

Total Recoverable Petroleum Hydrocarbons

50.

1000.

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Report Date: November 09, 1998

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ORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: October 27, 1998
Date Received: October 29, 1998

Contact: Dan Krupicka
Date Extracted: November 07, 1998
Date Analyzed: November 07, 1998

AMERICAN
WEST
ANALYTICAL
LABORATORIES

Analysis Requested:
Total Recoverable Petroleum
Hydrocarbons

Method Ref. Number:
EPA 1664 (Gravimetric
Silica Gel Treated)

Field Sample ID:
DIXIE CABLE/ESCALANTE MINE SAMPL/35-3152-01
DCS-16

Lab Sample ID:
L35101-18

Analytical Results

TRPH

463 West 3600 South
Salt Lake City, Utah
84115

Units = mg/kg(ppm)

Compound:

Reporting
Limit:

Amount
Detected:

Total Recoverable Petroleum Hydrocarbons

50.

. 160.

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Released By:

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Report Date: November 09, 1998

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ORGANIC ANALYSIS REPORT

AMERICAN
WEST
ANALYTICAL
LABORATORIES

Client: Kleinfelder-St. George
Date Sampled: October 27, 1998
Date Received: October 29, 1998

Contact: Dan Krupicka
Date Extracted: October 29, 1998
Date Analyzed: November 04, 1998

Analysis Requested:
Volatile Aromatics
Total Petroleum Hydrocarbons

Method Ref. Number:
EPA SW-846 8021/8015 modified
(Extraction Direct Injection)

Lab Sample ID.:
L35101-17

Field Sample ID.
Dixie Cable/Escalante Mine Sample
35-3152-01/DCS-15

463 West 3600 South
Salt Lake City, Utah
84115

Analytical Results

BTEXN/TPH-E

Units = mg/Kg(ppm)

Compound:

Reporting
Limit:

Amount
Detected:

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Benzene

0.1

< 0.1

Toluene

0.1

< 0.1

Ethylbenzene

0.1

< 0.1

Total Xylene

0.1

2.8

Naphthalene

0.1

3.1

Total Petroleum Hydrocarbons

20.


660.

% Moisture

0.1%

17.%

Released by:


Laboratory Supervisor

BTEXN TPH kg Master

Report Date 11/16/98

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ORGANIC ANALYSIS REPORT

AMERICAN
WEST
ANALYTICAL
LABORATORIES

Client: Kleinfelder-St. George
Contact: Dan Krupicka

Date Extracted: October 29, 1998
Date Analyzed: November 04, 1998

Analysis Requested:
Volatile Aromatics
Total Petroleum Hydrocarbons

Method Ref. Number:
EPA SW-846 8021/8015 modified
(Extraction Direct Injection)

Lab Sample ID.:

E35101-Method Blank

463 West 3600 South
Salt Lake City, Utah

84115

Analytical Results

BTEXN/TPH-E

Units = mg/Kg(ppm)

| <u>Compound:</u> | <u>Reporting Limit:</u> | <u>Amount Detected:</u> |
|---|-----------------------------|-----------------------------|
| Benzene | 0.1 | < 0.1 |
| (801) 263-8686 Toll Free (888) 263-8686 Fax (801) 263-8687 Toluene | 0.1 | < 0.1 |
| Ethylbenzene | 0.1 | < 0.1 |
| Total Xylene | 0.1 | < 0.1 |
| Naphthalene | 0.1 | < 0.1 |
| Total Petroleum Hydrocarbons | 20. | <20. |

Released by:

Beit
Laboratory Supervisor

BTEXN TPH kg Master

Report Date 11/16/98

1 of 1



INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: October 27, 1998

Contact: Dan Krupicka
Date Received: October 29, 1998

Field Sample ID:
AMERICAN DIXIE CABLE/ESCALANTE MINE SAMPL/35-3152-01
WEST DCBG-1

Lab Sample ID:
L35101-1

ANALYTICAL
LABORATORIES

Analytical Results

Units = mg/kg

TOTAL METALS

| | <u>Analysis Date:</u> | <u>Method Used:</u> | <u>Reporting Limit:</u> | <u>Amount Detected:</u> |
|----------|---------------------------|-------------------------|-----------------------------|-----------------------------|
| Arsenic | 11/05/98 | 7060A | 5.0 | 8.0 |
| Barium | 11/11/98 | 6010B | 0.5 | 430. |
| Cadmium | 11/11/98 | 6010B | 0.2 | 1.0 |
| Chromium | 11/11/98 | 6010B | 0.5 | 11. |
| Lead | 11/11/98 | 6010B | 3.0 | 75. |
| Mercury | 11/04/98 | 7471A | 0.04 | 0.050 |
| Selenium | 11/05/98 | 7740 | 1.0 | <1.0 |
| Silver | 11/11/98 | 6010B | 0.5 | 1.4 |

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Report Date: November 12, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: October 27, 1998

Contact: Dan Krupicka
Date Received: October 29, 1998

Field Sample ID:
AMERICAN DIXIE CABLE/ESCALANTE MINE SAMPL/35-3152-01
WEST DCBG-2

Lab Sample ID:
L35101-2

ANALYTICAL
LABORATORIES

Analytical Results

Units = mg/kg

| TOTAL METALS | <u>Analysis Date:</u> | <u>Method Used:</u> | <u>Reporting Limit:</u> | <u>Amount Detected:</u> |
|--------------|-----------------------|---------------------|-------------------------|-------------------------|
| Arsenic | 11/05/98 | 7060A | 5.0 | 10. |
| Barium | 11/11/98 | 6010B | 0.5 | 330. |
| Cadmium | 11/11/98 | 6010B | 0.2 | 0.90 |
| Chromium | 11/11/98 | 6010B | 0.5 | 12. |
| Lead | 11/11/98 | 6010B | 3.0 | 100. |
| Mercury | 11/04/98 | 7471A | 0.04 | 0.040 |
| Selenium | 11/05/98 | 7740 | 1.0 | <1.0 |
| Silver | 11/11/98 | 6010B | 0.5 | 2.7 |

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Report Date: November 12, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: October 27, 1998

Contact: Dan Krupicka
Date Received: October 29, 1998

AMERICAN WEST
ANALYTICAL
LABORATORIES
Field Sample ID:
DIXIE CABLE/ESCALANTE MINE SAMPL/35-3152-01
DCS-1

Lab Sample ID:
L35101-3

Analytical Results

Units = mg/kg

| TOTAL METALS | <u>Analysis Date:</u> | <u>Method Used:</u> | <u>Reporting Limit:</u> | <u>Amount Detected:</u> |
|--------------|-----------------------|---------------------|-------------------------|-------------------------|
| Arsenic | 11/05/98 | 7060A | 5.0 | 69. |
| Barium | 11/11/98 | 6010B | 0.5 | 660. |
| Cadmium | 11/11/98 | 6010B | 0.2 | 3.8 |
| Chromium | 11/11/98 | 6010B | 0.5 | 120. |
| Lead | 11/11/98 | 6010B | 3.0 | 1200. |
| Mercury | 11/04/98 | 7471A | 0.04 | 0.17 |
| Selenium | 11/05/98 | 7740 | 1.0 | 1.0 |
| Silver | 11/11/98 | 6010B | 0.5 | 27. |

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Report Date: November 12, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: October 27, 1998

Contact: Dan Krupicka
Date Received: October 29, 1998

Field Sample ID:
AMERICAN DIXIE CABLE/ESCALANTE MINE SAMPL/35-3152-01
WEST DCS-2
ANALYTICAL

Lab Sample ID:
L35101-4

LABORATORIES **Analytical Results**


Units = mg/kg

| TOTAL METALS | Analysis | Method | Reporting | Amount |
|--------------|----------|--------|-----------|-----------|
| | Date: | Used: | Limit: | Detected: |
| Arsenic | 11/05/98 | 7060A | 5.0 | 420. |
| Barium | 11/11/98 | 6010B | 0.5 | 2200. |
| Cadmium | 11/11/98 | 6010B | 0.2 | 22. |
| Chromium | 11/11/98 | 6010B | 0.5 | 21. |
| Lead | 11/11/98 | 6010B | 3.0 | 2700. |
| Mercury | 11/04/98 | 7471A | 0.04 | 0.99 |
| Selenium | 11/05/98 | 7740 | 1.0 | 9.0 |
| Silver | 11/11/98 | 6010B | 0.5 | 55. |

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Report Date: November 12, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: October 27, 1998

Contact: Dan Krupicka
Date Received: October 29, 1998

AMERICAN
WEST
ANALYTICAL
LABORATORIES

Field Sample ID:
DIXIE CABLE/ESCALANTE MINE SAMPL/35-3152-01
DCS-3

Lab Sample ID:
L35101-5

Analytical Results

Units = mg/kg

| TOTAL METALS | <u>Analysis Date:</u> | <u>Method Used:</u> | <u>Reporting Limit:</u> | <u>Amount Detected:</u> |
|--------------|---------------------------|-------------------------|-----------------------------|-----------------------------|
| Arsenic | 11/05/98 | 7060A | 5.0 | 70. |
| Barium | 11/11/98 | 6010B | 0.5 | 930. |
| Cadmium | 11/11/98 | 6010B | 0.2 | 5.6 |
| Chromium | 11/11/98 | 6010B | 0.5 | 12. |
| Lead | 11/11/98 | 6010B | 3.0 | 410. |
| Mercury | 11/04/98 | 7471A | 0.04 | 1.0 |
| Selenium | 11/05/98 | 7740 | 1.0 | 5.0 |
| Silver | 11/11/98 | 6010B | 0.5 | 52. |

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Report Date: November 12, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: October 27, 1998

Contact: Dan Krupicka
Date Received: October 29, 1998

AMERICAN WEST ANALYTICAL LABORATORIES
Field Sample ID: DIXIE CABLE/ESCALANTE MINE SAMPL/35-3152-01
DCS-4

Lab Sample ID: L35101-6

Analytical Results

Units = mg/kg

| TOTAL METALS | <u>Analysis Date:</u> | <u>Method Used:</u> | <u>Reporting Limit:</u> | <u>Amount Detected:</u> |
|--------------|-----------------------|---------------------|-------------------------|-------------------------|
| Arsenic | 11/03/98 | 7060A | 5.0 | 24. |
| Barium | 11/11/98 | 6010B | 0.5 | 1100. |
| Cadmium | 11/11/98 | 6010B | 0.2 | 1.5 |
| Chromium | 11/11/98 | 6010B | 0.5 | 7.2 |
| Lead | 11/11/98 | 6010B | 3.0 | 220. |
| Mercury | 11/04/98 | 7471A | 0.04 | <0.04 |
| Selenium | 11/03/98 | 7740 | 1.0 | <1.0 |
| Silver | 11/11/98 | 6010B | 0.5 | 3.1 |

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Report Date: November 12, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: October 27, 1998

Contact: Dan Krupicka
Date Received: October 29, 1998

AMERICAN WEST
ANALYTICAL
LABORATORIES

Field Sample ID:
DIXIE CABLE/ESCALANTE MINE SAMPL/35-3152-01
DCS-5

Lab Sample ID:
L35101-7

Analytical Results

Units = mg/kg

| | TOTAL METALS | Analysis | Method | Reporting | Amount |
|--|--------------|----------|--------|-----------|-----------|
| | | Date: | Used: | Limit: | Detected: |
| 463 West 3600 South Salt Lake City, Utah 84115 | Arsenic | 11/03/98 | 7060A | 5.0 | 150. |
| | Barium | 11/11/98 | 6010B | 0.5 | 2200. |
| | Cadmium | 11/11/98 | 6010B | 0.2 | 15. |
| | Chromium | 11/11/98 | 6010B | 0.5 | 28. |
| | Lead | 11/11/98 | 6010B | 3.0 | 2500. |
| | Mercury | 11/04/98 | 7471A | 0.04 | 0.11 |
| | Selenium | 11/03/98 | 7740 | 1.0 | < 1.0 |
| | Silver | 11/11/98 | 6010B | 0.5 | 30. |
| | | | | | |

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Laboratory Supervisor

Report Date: November 12, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: October 27, 1998

Contact: Dan Krupicka
Date Received: October 29, 1998

AMERICAN
WEST
ANALYTICAL
LABORATORIES

Field Sample ID:
DIXIE CABLE/ESCALANTE MINE SAMPL/35-3152-01
DCS-6

Lab Sample ID:
L35101-8

Analytical Results

Units = mg/kg

| TOTAL METALS | <u>Analysis Date:</u> | <u>Method Used:</u> | <u>Reporting Limit:</u> | <u>Amount Detected:</u> |
|--------------|---------------------------|-------------------------|-----------------------------|-----------------------------|
| Arsenic | 11/03/98 | 7060A | 5.0 | 150. |
| Barium | 11/11/98 | 6010B | 0.5 | 1500. |
| Cadmium | 11/11/98 | 6010B | 0.2 | 6.3 |
| Chromium | 11/11/98 | 6010B | 0.5 | 10. |
| Lead | 11/11/98 | 6010B | 3.0 | 930. |
| Mercury | 11/04/98 | 7471A | 0.04 | 0.080 |
| Selenium | 11/03/98 | 7740 | 1.0 | 1.0 |
| Silver | 11/11/98 | 6010B | 0.5 | 20. |

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Released By: _____

Laboratory Supervisor

Report Date: November 12, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: October 27, 1998

Contact: Dan Krupicka
Date Received: October 29, 1998

AMERICAN WEST
ANALYTICAL
LABORATORIES

Field Sample ID:
DIXIE CABLE/ESCALANTE MINE SAMPL/35-3152-01
DCS-7

Lab Sample ID:
L35101-9

Analytical Results

Units = mg/kg

| TOTAL METALS | <u>Analysis Date:</u> | <u>Method Used:</u> | <u>Reporting Limit:</u> | <u>Amount Detected:</u> |
|--------------|-----------------------|---------------------|-------------------------|-------------------------|
| Arsenic | 11/05/98 | 7060A | 5.0 | 1600. |
| Barium | 11/11/98 | 6010B | 0.5 | 1900. |
| Cadmium | 11/11/98 | 6010B | 0.2 | 96. |
| Chromium | 11/11/98 | 6010B | 0.5 | 23. |
| Lead | 11/11/98 | 6010B | 3.0 | 16000. |
| Mercury | 11/04/98 | 7471A | 0.04 | 0.48 |
| Selenium | 11/05/98 | 7740 | 1.0 | <1.0 |
| Silver | 11/11/98 | 6010B | 0.5 | 23. |

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Released By: 
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Report Date: November 12, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: October 27, 1998

Contact: Dan Krupicka
Date Received: October 29, 1998

AMERICAN WEST
ANALYTICAL
LABORATORIES

Field Sample ID:
DIXIE CABLE/ESCALANTE MINE SAMPL/35-3152-01
DCS-8

Lab Sample ID:
L35101-10

Analytical Results

Units = mg/kg

| TOTAL METALS | | <u>Analysis Date:</u> | <u>Method Used:</u> | <u>Reporting Limit:</u> | <u>Amount Detected:</u> |
|--|----------|---------------------------|-------------------------|-----------------------------|-----------------------------|
| 463 West 3600 South Salt Lake City, Utah 84115 | Arsenic | 11/05/98 | 7060A | 5.0 | 1400. |
| | Barium | 11/11/98 | 6010B | 0.5 | 1500. |
| | Cadmium | 11/11/98 | 6010B | 0.2 | 120. |
| | Chromium | 11/11/98 | 6010B | 0.5 | 10. |
| | Lead | 11/11/98 | 6010B | 3.0 | 15000. |
| | Mercury | 11/04/98 | 7471A | 0.04 | 0.48 |
| | Selenium | 11/05/98 | 7740 | 1.0 | <1.0 |
| | Silver | 11/11/98 | 6010B | 0.5 | 28. |

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Released By:

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Report Date: November 12, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: October 27, 1998

Contact: Dan Krupicka
Date Received: October 29, 1998

Field Sample ID:
AMERICAN DIXIE CABLE/ESCALANTE MINE SAMPL/35-3152-01
WEST DCS-9

Lab Sample ID:
L35101-11

ANALYTICAL
LABORATORIES

Analytical Results

Units = mg/kg

TOTAL METALS

| | <u>Analysis Date:</u> | <u>Method Used:</u> | <u>Reporting Limit:</u> | <u>Amount Detected:</u> |
|----------|---------------------------|-------------------------|-----------------------------|-----------------------------|
| Arsenic | 11/05/98 | 7060A | 5.0 | 730. |
| Barium | 11/11/98 | 6010B | 0.5 | 3900. |
| Cadmium | 11/11/98 | 6010B | 0.2 | 34. |
| Chromium | 11/11/98 | 6010B | 0.5 | 29. |
| Lead | 11/11/98 | 6010B | 3.0 | 5500. |
| Mercury | 11/04/98 | 7471A | 0.04 | 0.28 |
| Selenium | 11/05/98 | 7740 | 1.0 | <1.0 |
| Silver | 11/11/98 | 6010B | 0.5 | 17. |

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Report Date: November 12, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: October 27, 1998

Contact: Dan Krupicka
Date Received: October 29, 1998

AMERICAN WEST
ANALYTICAL
LABORATORIES

Field Sample ID:
DIXIE CABLE/ESCALANTE MINE SAMPL/35-3152-01
DCS-10

Lab Sample ID:
L35101-12

Analytical Results

Units = mg/kg

| TOTAL METALS | <u>Analysis Date:</u> | <u>Method Used:</u> | <u>Reporting Limit:</u> | <u>Amount Detected:</u> |
|--------------|-----------------------|---------------------|-------------------------|-------------------------|
| Arsenic | 11/05/98 | 7060A | 5.0 | 840. |
| Barium | 11/11/98 | 6010B | 0.5 | 3700. |
| Cadmium | 11/11/98 | 6010B | 0.2 | 41. |
| Chromium | 11/11/98 | 6010B | 0.5 | 20. |
| Lead | 11/11/98 | 6010B | 3.0 | 6200. |
| Mercury | 11/04/98 | 7471A | 0.04 | 0.30 |
| Selenium | 11/05/98 | 7740 | 1.0 | <1.0 |
| Silver | 11/11/98 | 6010B | 0.5 | 21. |

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: October 27, 1998

Contact: Dan Krupicka
Date Received: October 29, 1998

AMERICAN
WEST
ANALYTICAL
LABORATORIES

Field Sample ID:

DIXIE CABLE/ESCALANTE MINE SAMPL/35-3152-01
DCS-11

Lab Sample ID:

L35101-13

Analytical Results

Units = mg/kg

| TOTAL METALS | <u>Analysis Date:</u> | <u>Method Used:</u> | <u>Reporting Limit:</u> | <u>Amount Detected:</u> |
|--------------|-----------------------|---------------------|-------------------------|-------------------------|
| Arsenic | 11/05/98 | 7060A | 5.0 | 97. |
| Barium | 11/11/98 | 6010B | 0.5 | 590. |
| Cadmium | 11/11/98 | 6010B | 0.2 | 4.1 |
| Chromium | 11/11/98 | 6010B | 0.5 | 10. |
| Lead | 11/11/98 | 6010B | 3.0 | 700. |
| Mercury | 11/04/98 | 7471A | 0.04 | < 0.04 |
| Selenium | 11/05/98 | 7740 | 1.0 | < 1.0 |
| Silver | 11/11/98 | 6010B | 0.5 | 8.3 |

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RAZ
Laboratory Supervisor

Report Date: November 12, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: October 27, 1998

Contact: Dan Krupicka
Date Received: October 29, 1998

AMERICAN
WEST
ANALYTICAL
LABORATORIES

Field Sample ID:
DIXIE CABLE/ESCALANTE MINE SAMPL/35-3152-01
DCS-12

Lab Sample ID:
L35101-14

Analytical Results

Units = mg/kg

| | TOTAL METALS | <u>Analysis</u> | <u>Method</u> | <u>Reporting</u> | <u>Amount</u> |
|--|--------------|-----------------|---------------|------------------|------------------|
| | | <u>Date:</u> | <u>Used:</u> | <u>Limit:</u> | <u>Detected:</u> |
| 463 West 3600 South Salt Lake City, Utah 84115 | Arsenic | 11/03/98 | 7060A | 5.0 | 140. |
| | Barium | 11/11/98 | 6010B | 0.5 | 3200. |
| | Cadmium | 11/11/98 | 6010B | 0.2 | 47. |
| | Chromium | 11/11/98 | 6010B | 0.5 | 16. |
| | Lead | 11/11/98 | 6010B | 3.0 | 8500. |
| | Mercury | 11/04/98 | 7471A | 0.04 | 0.25 |
| | Selenium | 11/03/98 | 7740 | 1.0 | < 1.0 |
| | Silver | 11/11/98 | 6010B | 0.5 | 29. |
| | | | | | |

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Report Date: November 12, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: October 27, 1998

Contact: Dan Krupicka
Date Received: October 29, 1998

Field Sample ID:
AMERICAN DIXIE CABLE/ESCALANTE MINE SAMPL/35-3152-01
WEST DCS-13

Lab Sample ID:
L35101-15

ANALYTICAL
LABORATORIES

Analytical Results

Units = mg/kg

| | TOTAL METALS | Analysis | Method | Reporting | Amount |
|--|--------------|----------|--------|-----------|-----------|
| | | Date: | Used: | Limit: | Detected: |
| 463 West 3600 South Salt Lake City, Utah 84115 (801) 263-8686 Toll Free (888) 263-8686 Fax (801) 263-8687 | Arsenic | 11/03/98 | 7060A | 5.0 | 340. |
| | Barium | 11/11/98 | 6010B | 0.5 | 3800. |
| | Cadmium | 11/11/98 | 6010B | 0.2 | 59. |
| | Chromium | 11/11/98 | 6010B | 0.5 | 17. |
| | Lead | 11/11/98 | 6010B | 3.0 | 8300. |
| | Mercury | 11/04/98 | 7471A | 0.04 | 0.34 |
| | Selenium | 11/03/98 | 7740 | 1.0 | <1.0 |
| | Silver | 11/11/98 | 6010B | 0.5 | 38. |
| | | | | | |

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Laboratory Supervisor

Report Date: November 12, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: October 27, 1998

Contact: Dan Krupicka
Date Received: October 29, 1998

AMERICAN
WEST
ANALYTICAL
LABORATORIES

Field Sample ID:
DIXIE CABLE/ESCALANTE MINE SAMPL/35-3152-01
DCS-14

Lab Sample ID:
L35101-16

Analytical Results

Units = mg/kg

| | TOTAL METALS | Analysis | Method | Reporting | Amount |
|--|--------------|----------|--------|-----------|-----------|
| | | Date: | Used: | Limit: | Detected: |
| 463 West 3600 South Salt Lake City, Utah 84115 (801) 263-8686 Toll Free (888) 263-8686 Fax (801)-263-8687 | Arsenic | 11/03/98 | 7060A | 5.0 | 310. |
| | Barium | 11/11/98 | 6010B | 0.5 | 3500. |
| | Cadmium | 11/11/98 | 6010B | 0.2 | 35. |
| | Chromium | 11/11/98 | 6010B | 0.5 | 17. |
| | Lead | 11/11/98 | 6010B | 3.0 | 6500. |
| | Mercury | 11/04/98 | 7471A | 0.04 | 0.17 |
| | Selenium | 11/03/98 | 7740 | 1.0 | <1.0 |
| | Silver | 11/11/98 | 6010B | 0.5 | 14. |
| | | | | | |
| | | | | | |

Released By:

Laboratory Supervisor

Report Date: November 12, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: October 27, 1998

Contact: Dan Krupicka
Date Received: October 29, 1998

AMERICAN
WEST
ANALYTICAL
LABORATORIES

Field Sample ID:
DIXIE CABLE/ESCALANTE MINE SAMPL/35-3152-01
DCS-16

Lab Sample ID:
L35101-18

Analytical Results

Units = mg/kg

| TOTAL METALS | <u>Analysis Date:</u> | <u>Method Used:</u> | <u>Reporting Limit:</u> | <u>Amount Detected:</u> |
|--------------|---------------------------|-------------------------|-----------------------------|-----------------------------|
| Arsenic | 11/03/98 | 7060A | 5.0 | 200. |
| Barium | 11/11/98 | 6010B | 0.5 | 3000. |
| Cadmium | 11/11/98 | 6010B | 0.2 | 24. |
| Chromium | 11/11/98 | 6010B | 0.5 | 100. |
| Lead | 11/11/98 | 6010B | 3.0 | 8000. |
| Mercury | 11/04/98 | 7471A | 0.04 | 1.9 |
| Selenium | 11/03/98 | 7740 | 1.0 | 2.0 |
| Silver | 11/11/98 | 6010B | 0.5 | 53. |

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84115

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Report Date: November 12, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: October 27, 1998

Contact: Dan Krupicka
Date Received: October 29, 1998

AMERICAN
WEST
ANALYTICAL
LABORATORIES

Field Sample ID:
DIXIE CABLE/ESCALANTE MINE SAMPL/35-3152-01
DCS-17

Lab Sample ID:
L35101-19

Analytical Results


Units = mg/kg

| TOTAL METALS | <u>Analysis Date:</u> | <u>Method Used:</u> | <u>Reporting Limit:</u> | <u>Amount Detected:</u> |
|--------------|---------------------------|-------------------------|-----------------------------|-----------------------------|
| Arsenic | 11/05/98 | 7060A | 5.0 | 490. |
| Barium | 11/11/98 | 6010B | 0.5 | 3100. |
| Cadmium | 11/11/98 | 6010B | 0.2 | 24. |
| Chromium | 11/11/98 | 6010B | 0.5 | 72. |
| Lead | 11/11/98 | 6010B | 3.0 | 3700. |
| Mercury | 11/04/98 | 7471A | 0.04 | 0.49 |
| Selenium | 11/05/98 | 7740 | 1.0 | < 1.0 |
| Silver | 11/11/98 | 6010B | 0.5 | 5.8 |

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: October 27, 1998

Contact: Dan Krupicka
Date Received: October 29, 1998

AMERICAN WEST
ANALYTICAL
LABORATORIES

Field Sample ID:
DIXIE CABLE/ESCALANTE MINE SAMPL/35-3152-01
DCS-1

Lab Sample ID:
L35101-3


Analytical Results

Units = mg/kg

| | <u>OTHER CHEMISTRIES</u> | <u>Analysis Date:</u> | <u>Method Used:</u> | <u>Reporting Limit:</u> | <u>Amount Detected:</u> |
|--|--------------------------|-----------------------|---------------------|-------------------------|-------------------------|
| 463 West 3600 South Salt Lake City, Utah 84115 | Cyanide | 11/13/98 | 4500-CN C | 0.05 | 0.23 |

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Report Date: November 15, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: October 27, 1998

Contact: Dan Krupicka
Date Received: October 29, 1998

AMERICAN WEST
ANALYTICAL
LABORATORIES

Field Sample ID:
DIXIE CABLE/ESCALANTE MINE SAMPL/35-3152-01
DCS-2

Lab Sample ID:
L35101-4

Analytical Results

Units = mg/kg

OTHER CHEMISTRIES

Analysis
Date:

Method
Used:

Reporting
Limit:

Amount
Detected:

463 West 3600 South
Salt Lake City, Utah
84115

Cyanide

11/13/98

4500-CN C

0.05

16.

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Released By: _____

RLT

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Report Date: November 15, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: October 27, 1998

Contact: Dan Krupicka
Date Received: October 29, 1998

AMERICAN WEST
ANALYTICAL
LABORATORIES

Field Sample ID:
DIXIE CABLE/ESCALANTE MINE SAMPL/35-3152-01
DCS-3

Lab Sample ID:
L35101-5

Analytical Results

Units = mg/kg

| | <u>OTHER CHEMISTRIES</u> | <u>Analysis Date:</u> | <u>Method Used:</u> | <u>Reporting Limit:</u> | <u>Amount Detected:</u> |
|--|--------------------------|-----------------------|---------------------|-------------------------|-------------------------|
| 463 West 3600 South Salt Lake City, Utah 84115 | Cyanide | 11/13/98 | 4500-CN C | 0.05 | 0.66 |

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BeM

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Report Date: November 15, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: October 27, 1998

Contact: Dan Krupicka
Date Received: October 29, 1998

AMERICAN
WEST
ANALYTICAL
LABORATORIES

Field Sample ID:
DIXIE CABLE/ESCALANTE MINE SAMPL/35-3152-01
DCS-4

Lab Sample ID:
L35101-6

Analytical Results

Units = mg/kg

OTHER CHEMISTRIES

Cyanide

Analysis
Date:

11/13/98

Method
Used:

4500-CN C

Reporting
Limit:

0.05

Amount
Detected:

0.28

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Report Date: November 15, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: October 27, 1998

Contact: Dan Krupicka
Date Received: October 29, 1998

AMERICAN
WEST
ANALYTICAL
LABORATORIES

Field Sample ID:
DIXIE CABLE/ESCALANTE MINE SAMPL/35-3152-01
DCS-5

Lab Sample ID:
L35101-7

Analytical Results

Units = mg/kg

| | <u>OTHER CHEMISTRIES</u> | <u>Analysis Date:</u> | <u>Method Used:</u> | <u>Reporting Limit:</u> | <u>Amount Detected:</u> |
|--|--------------------------|-----------------------|---------------------|-------------------------|-------------------------|
| 463 West 3600 South Salt Lake City, Utah 84115 | Cyanide | 11/13/98 | 4500-CN C | 0.05 | 40. |

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Report Date: November 15, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: October 27, 1998

Contact: Dan Krupicka
Date Received: October 29, 1998

AMERICAN
WEST
ANALYTICAL
LABORATORIES

Field Sample ID:
DIXIE CABLE/ESCALANTE MINE SAMPL/35-3152-01
DCS-6

Lab Sample ID:
L35101-8

Analytical Results

Units = mg/kg

| | <u>OTHER CHEMISTRIES</u> | <u>Analysis Date:</u> | <u>Method Used:</u> | <u>Reporting Limit:</u> | <u>Amount Detected:</u> |
|--|--------------------------|-----------------------|---------------------|-------------------------|-------------------------|
| 463 West 3600 South Salt Lake City, Utah 84115 | Cyanide | 11/13/98 | 4500-CN C | 0.05 | 0.95 |

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: October 27, 1998

Contact: Dan Krupicka
Date Received: October 29, 1998

AMERICAN
WEST
ANALYTICAL
LABORATORIES

Field Sample ID:
DIXIE CABLE/ESCALANTE MINE SAMPL/35-3152-01
DCS-7

Lab Sample ID:
L35101-9

Analytical Results

Units = mg/kg

OTHER CHEMISTRIES

Analysis
Date:

Method
Used:

Reporting
Limit:

Amount
Detected:

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Cyanide

11/13/98

4500-CN C

0.05

24.

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[Signature]

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Report Date: November 15, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: October 27, 1998

Contact: Dan Krupicka
Date Received: October 29, 1998

AMERICAN WEST ANALYTICAL LABORATORIES
Field Sample ID:
DIXIE CABLE/ESCALANTE MINE SAMPL/35-3152-01
DCS-8

Lab Sample ID:
L35101-10

Analytical Results

Units = mg/kg

| | <u>OTHER CHEMISTRIES</u> | <u>Analysis Date:</u> | <u>Method Used:</u> | <u>Reporting Limit:</u> | <u>Amount Detected:</u> |
|--|--------------------------|-----------------------|---------------------|-------------------------|-------------------------|
| 463 West 3600 South Salt Lake City, Utah 84115 | Cyanide | 11/13/98 | 4500-CN C | 0.05 | 39. |

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Report Date: November 15, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: October 27, 1998

Contact: Dan Krupicka
Date Received: October 29, 1998

AMERICAN Field Sample ID:
WEST DIXIE CABLE/ESCALANTE MINE SAMPL/35-3152-01
ANALYTICAL DCS-9
LABORATORIES

Lab Sample ID:
L35101-11

Analytical Results

Units = mg/kg

| | <u>OTHER CHEMISTRIES</u> | <u>Analysis Date:</u> | <u>Method Used:</u> | <u>Reporting Limit:</u> | <u>Amount Detected:</u> |
|--|--------------------------|-----------------------|---------------------|-------------------------|-------------------------|
| 463 West 3600 South Salt Lake City, Utah 84115 | Cyanide | 11/13/98 | 4500-CN C | 0.05 | 1.6 |

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P. M.

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Report Date: November 15, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: October 27, 1998

Contact: Dan Krupicka
Date Received: October 29, 1998

AMERICAN WEST ANALYTICAL LABORATORIES
Field Sample ID:
DIXIE CABLE/ESCALANTE MINE SAMPL/35-3152-01
DCS-10

Lab Sample ID:
L35101-12

Analytical Results

Units = mg/kg

| | <u>OTHER CHEMISTRIES</u> | <u>Analysis Date:</u> | <u>Method Used:</u> | <u>Reporting Limit:</u> | <u>Amount Detected:</u> |
|--|--------------------------|-----------------------|---------------------|-------------------------|-------------------------|
| 463 West 3600 South Salt Lake City, Utah 84115 | Cyanide | 11/13/98 | 4500-CN C | 0.05 | 81. |

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Report Date: November 15, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: October 27, 1998

Contact: Dan Krupicka
Date Received: October 29, 1998

AMERICAN WEST
ANALYTICAL
LABORATORIES

Field Sample ID:
DIXIE CABLE/ESCALANTE MINE SAMPL/35-3152-01
DCS-11

Lab Sample ID:
L35101-13

Analytical Results

Units = mg/kg

OTHER CHEMISTRIES

Analysis
Date:

Method
Used:

Reporting
Limit:

Amount
Detected:

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Cyanide

11/13/98

4500-CN C

0.05

18.

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Pa. AL

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Report Date: November 15, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: October 27, 1998

Contact: Dan Krupicka
Date Received: October 29, 1998

AMERICAN WEST ANALYTICAL LABORATORIES
Field Sample ID: DIXIE CABLE/ESCALANTE MINE SAMPL/35-3152-01
DCS-12

Lab Sample ID:
L35101-14

Analytical Results

Units = mg/kg

| | <u>OTHER CHEMISTRIES</u> | <u>Analysis Date:</u> | <u>Method Used:</u> | <u>Reporting Limit:</u> | <u>Amount Detected:</u> |
|--|--------------------------|-----------------------|---------------------|-------------------------|-------------------------|
| 463 West 3600 South Salt Lake City, Utah 84115 | Cyanide | 11/13/98 | 4500-CN C | 0.05 | 19. |

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Laboratory Supervisor

Report Date: November 15, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: October 27, 1998

Contact: Dan Krupicka
Date Received: October 29, 1998

AMERICAN Field Sample ID:
WEST DIXIE CABLE/ESCALANTE MINE SAMPL/35-3152-01
ANALYTICAL DCS-13
LABORATORIES

Lab Sample ID:
L35101-15

Analytical Results

Units = mg/kg

| | <u>OTHER CHEMISTRIES</u> | <u>Analysis Date:</u> | <u>Method Used:</u> | <u>Reporting Limit:</u> | <u>Amount Detected:</u> |
|--|--------------------------|-----------------------|---------------------|-------------------------|-------------------------|
| 463 West 3600 South Salt Lake City, Utah 84115 | Cyanide | 11/13/98 | 4500-CN C | 0.05 | 120. |

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Laboratory Supervisor

Report Date: November 15, 1998

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A

QUALITY CONTROL REPORT

Client: Kleinfelder-St. George
Lab Sample ID.: L35101

QC Sample #: L35101-6DUP Matrix: Wipes

Quality Control Results

| Compound | QC Batch ID# | Original Concentration | Sample Dup Recovered | % Difference |
|----------|--------------|------------------------|----------------------|--------------|
| Silver | WG15760 | 3.1 | 9.2 | 100. |
| Barium | WG15760 | 1,100. | 1,200. | 8.7 |
| Cadmium | WG15760 | 1.5 | 1.8 | 18. |
| Chromium | WG15760 | 7.2 | 8.6 | 18. |
| Lead | WG15760 | 220. | 230. | 4.4 |

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Laboratory Supervisor

QC III Master (WC)

Report Date 11/20/98

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QUALITY CONTROL REPORT

Client: Kleinfelder-St. George
Lab Sample ID.: L35101

QC Sample #: L35101-6

Matrix: Solid

Quality Control Results

| Compound | QC Batch ID # | Original Concentration | Spike Added | % Spike Recovered | % Spike Dup Recovery | Relative % Difference | % Recovery Limits | RPD Limits | % LCS Recovery | % LCS Limits |
|----------|---------------|------------------------|-------------|-------------------|----------------------|-----------------------|-------------------|------------|----------------|--------------|
| Silver | WG15760 | 3.1 | 100. | 82. | 78. | 5.0 | 75. to 125. | 20. | 94. | 75. to 125. |
| Cadmium | WG15760 | 1.5 | 100. | 94. | 95. | 1.1 | 75. to 125. | 20. | 97. | 75. to 125. |
| Chromium | WG15760 | 7.2 | 100. | 93. | 95. | 2.1 | 75. to 125. | 20. | 95. | 75. to 125. |
| Lead | WG15760 | 220. | 100. | 87. | 230. * | 90. | 75. to 125. | 20. | 97. | 75. to 125. |

* Spike recovery indicates matrix interference. Matrix interference confirmed by interference test. The method is in control as indicated by the laboratory control sample (LCS).

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Laboratory Supervisor

Report Date 11/16/98

QC III Batch ID Master

1 of 1

A

QUALITY CONTROL REPORT

Client: Kleinfelder-St. George
Lab Sample ID.: L35101

QC Sample #: L35094-4

Matrix: Solid

Quality Control Results

| Compound | QC Batch ID # | Original Concentration | Spike Added | % Spike Recovered | % Spike Dup Recovery | Relative % Difference | % Recovery Limits | RPD Limits | % LCS Recovery | % LCS Limits |
|----------|---------------|------------------------|-------------|-------------------|----------------------|-----------------------|-------------------|------------|----------------|--------------|
| Silver | WG15720 | ND | 100. | 44. * | 39. * | 12. | 75. to 125. | 20. | 97. | 75. to 125. |
| Barium | WG15720 | 0.6 | 100. | 96. | 99. | 3.1 | 75. to 125. | 20. | 98. | 75. to 125. |
| Cadmium | WG15720 | ND | 100. | 102. | 102. | 0.0 | 75. to 125. | 20. | 102. | 75. to 125. |
| Chromium | WG15720 | 0.5 | 100. | 101. | 102. | 1.0 | 75. to 125. | 20. | 99. | 75. to 125. |
| Lead | WG15720 | ND | 100. | 101. | 102. | 1.0 | 75. to 125. | 20. | 98. | 75. to 125. |

ND= Not Detected.

* Spike recovery indicates matrix interference. Matrix interference confirmed by interference test. The method is in control as indicated by the laboratory control sample (LCS).

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FLZ

Laboratory Supervisor

Report Date 11/16/98

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A

QUALITY CONTROL REPORT

Client: Kleinfelder-St. George
Lab Sample ID.: L35101

QC Sample #: L35101-22

Matrix: Wipes

Quality Control Results

| Compound | QC Batch ID # | Original Concentration | Spike Added | % Spike Recovered | % Spike Dup Recovery | Relative % Difference | % Recovery Limits | RPD Limits | % LCS Recovery | % LCS Limits |
|----------|------------------|---------------------------|----------------|----------------------|-------------------------|--------------------------|----------------------|---------------|-------------------|-----------------|
| Mercury | WG15683 | 9.0 | 20. | 34. | 27. | 23. | 80. to 120. | 24. | 86. | 80. to 120. |

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Laboratory Supervisor

Report Date 11/20/98

QC III Batch ID Master

A

QUALITY CONTROL REPORT

Client: Kleinfelder-St. George
Lab Sample ID.: L35101

QC Sample #: L35101-2

Matrix: Solid

Quality Control Results

| Compound | QC Batch ID # | Original Concentration | Spike Added | % Spike Recovered | % Spike Dup Recovery | Relative % Difference | % Recovery Limits | RPD Limits | % LCS Recovery | % LCS Limits |
|----------|------------------|---------------------------|----------------|----------------------|-------------------------|--------------------------|----------------------|---------------|-------------------|-----------------|
| Mercury | WG15680 | 0.04 | 0.2 | 125. | 120. | 4.0 | 80. to 120. | 24. | 118. | 80. to 120. |

Released by: _____

BAZ

Laboratory Supervisor

Report Date 11/20/98

QC III Batch ID Master



QUALITY CONTROL REPORT

Client: Kleinfelder-St. George
Lab Sample ID.: L35101

QC Sample #: L35101-LCS/LCSD

Matrix: Wipes

Quality Control Results

| Compound | QC Batch ID# | Original Concentration | Sample Dup Recovered | % Difference |
|----------|--------------|------------------------|----------------------|--------------|
| Arsenic | WG15772 | 48. | 49. | 2.1 |
| Selenium | WG15772 | 43. | 46. | 6.7 |

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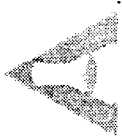
RA

Laboratory Supervisor

Report Date 11/20/98

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QC III Master (WC)



QUALITY CONTROL REPORT

Client: Kleinfield-St. George
Lab Sample ID.: L35101

QC Sample #: L35094-4

Matrix: Solid

Quality Control Results

| Compound | QC Batch ID # | Original Concentration | Spike Added | % Spike Recovered | % Spike Dup Recovery | Relative % Difference | % Recovery Limits | RPD Limits | % LCS Recovery | % LCS Limits |
|----------|---------------|------------------------|-------------|-------------------|----------------------|-----------------------|-------------------|------------|----------------|--------------|
| Arsenic | WG15720 | ND | 5.0 | 111. | 111. | 0.0 | 80. to 120. | 20. | 100. | 85. to 115. |
| Selenium | WG15720 | ND | 5.0 | 112. | 107. | 4.6 | 80. to 120. | 20. | 102. | 85. to 115. |

ND= Not Detected.

Released by: _____

P. H.

Laboratory Supervisor

Report Date 11/16/98

1 of 1



QUALITY CONTROL REPORT

Client: Kleinfelder-St. George
Lab Sample ID.: L35101

QC Sample #: L35101-6

Matrix: Solid

Quality Control Results

| Compound | QC Batch ID # | Original Concentration | Spike Added | % Spike Recovered | % Spike Dup Recovery | Relative % Difference | % Recovery Limits | RPD Limits | % LCS Recovery | % LCS Limits |
|----------|---------------|------------------------|-------------|-------------------|----------------------|-----------------------|-------------------|------------|----------------|--------------|
| Arsenic | WG15760 | 24. | 5.0 | 660. * | 660. * | 0.0 | 80. to 120. | 20. | 102. | 85. to 115. |
| Selenium | WG15760 | 0.1 | 5.0 | 136. * | 136. * | 0.0 | 80. to 120. | 20. | 102. | 85. to 115. |

* Poor spike recoveries due to suspected sample inhomogeneity. Interference tests within acceptance limits.

Released by: PLH
Laboratory Supervisor

Report Date 11/16/98

QC III Batch ID Master



QUALITY CONTROL REPORT

Client: Kleinfelder-SLC
Lab Sample ID.: L35101

QC Sample #: L35101-4 Matrix: Solid

Quality Control Results

| Compound | QC Batch ID# | Original Concentration | Sample Dup Recovered | % Difference |
|----------------|--------------|------------------------|----------------------|--------------|
| Cyanide, Total | WG15690 | 16. | 16. | 1.2 |

Released by: RA

Laboratory Supervisor

QC III Master (WC)

Report Date 11/20/98

1 of 1

A

QUALITY CONTROL REPORT

Client: Kleinfelder-St. George
Lab Sample ID.: L35101

QC Sample #: L35101-18 Matrix: Solid

Quality Control Results

| Compound | QC Batch ID # | Original Concentration | Spike Added | % Spike Recovered | % Spike Dup Recovery | Relative % Difference | % Recovery Limits | RPD Limits | % LCS Recovery | % LCS Limits |
|----------|------------------|---------------------------|----------------|----------------------|-------------------------|--------------------------|----------------------|---------------|-------------------|-----------------|
| TRPH | WG15713 | 157. | 2,000. | 68. | 72. | 4.0 | 66. to 114. | 24. | 82. | 66. to 114. |

Released by: _____

RL

Laboratory Supervisor

Report Date 11/16/98

1 of 1

QC III Batch ID Master



QUALITY CONTROL REPORT

Client: Kleinfelder-St. George
Lab Sample ID.: L35101-LCS

QC Sample #: L35101-LCSDUP Matrix: Solid

Quality Control Results

| Compound | QC Batch ID# | Original Concentration | Sample Dup Recovered | % Difference |
|----------|--------------|------------------------|----------------------|--------------|
| Silver | WG15772 | 1.07 | 0.94 | 13. |
| Barium | WG15772 | 0.99 | 0.96 | 3.1 |
| Cadmium | WG15772 | 0.97 | 0.93 | 4.2 |
| Chromium | WG15772 | 0.99 | 0.94 | 5.2 |
| Lead | WG15772 | 1.09 | 0.96 | 13. |

Released by: RA

Laboratory Supervisor

Report Date 11/16/98

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QC III Master (WC)



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1
1

KLEINFELDER

[illegible]



INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: October 27, 1998

Contact: Dan Krupicka
Date Received: October 29, 1998

AMERICAN
WEST
ANALYTICAL
LABORATORIES

Field Sample ID:
DIXIE CABLE/ESCALANTE MINE SAMPL/35-3152-01
DCS-14

Lab Sample ID:
L35101-16

Analytical Results

Units = mg/kg

OTHER CHEMISTRIES

Analysis
Date:

Method
Used:

Reporting
Limit:

Amount
Detected:

463 West 3600 South
Salt Lake City, Utah
84115

Cyanide

11/13/98

4500-CN C

0.05

75.

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Released By: _____

Laboratory Supervisor

Report Date: November 15, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: October 27, 1998

Contact: Dan Krupicka
Date Received: October 29, 1998

AMERICAN
WEST
ANALYTICAL
LABORATORIES

Field Sample ID:
DIXIE CABLE/ESCALANTE MINE SAMPL/35-3152-01
DCS-16

Lab Sample ID:
L35101-18

Analytical Results

Units = mg/kg

| | <u>OTHER CHEMISTRIES</u> | <u>Analysis Date:</u> | <u>Method Used:</u> | <u>Reporting Limit:</u> | <u>Amount Detected:</u> |
|--|--------------------------|-----------------------|---------------------|-------------------------|-------------------------|
| 463 West 3600 South Salt Lake City, Utah 84115 | Cyanide | 11/13/98 | 4500-CN C | 0.05 | 580. |

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Report Date: November 15, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: October 27, 1998

Contact: Dan Krupicka
Date Received: October 29, 1998

AMERICAN
WEST
ANALYTICAL
LABORATORIES

Field Sample ID:
DIXIE CABLE/ESCALANTE MINE SAMPL/35-3152-01
DCS-17

Lab Sample ID:
L35101-19

Analytical Results

Units = mg/kg

OTHER CHEMISTRIES

Analysis
Date:

Method
Used:

Reporting
Limit:

Amount
Detected:

463 West 3600 South
Salt Lake City, Utah
84115

Cyanide

11/13/98

4500-CN C

0.05

640.

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Released By: _____

Pat

Laboratory Supervisor

Report Date: November 15, 1998

1 of 1



INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: October 27, 1998

Contact: Dan Krupicka
Date Received: October 29, 1998

AMERICAN
WEST
ANALYTICAL
LABORATORIES

Field Sample ID:
DIXIE CABLE/ESCALANTE MINE SAMPL/35-3152-01
DCW-1

Lab Sample ID:
L35101-20

Analytical Results

Units = mg/sample

| TOTAL METALS | <u>Analysis Date:</u> | <u>Method Used:</u> | <u>Reporting Limit:</u> | <u>Amount Detected:</u> |
|--------------|---------------------------|-------------------------|-----------------------------|-----------------------------|
| Arsenic | 11/09/98 | 7060A | 0.05 | 7.5 |
| Barium | 11/11/98 | 6010B | 0.05 | 7.4 |
| Cadmium | 11/11/98 | 6010B | 0.02 | 0.050 |
| Chromium | 11/11/98 | 6010B | 0.05 | 0.060 |
| Lead | 11/11/98 | 6010B | 0.3 | 6.2 |
| Mercury | 11/04/98 | 7471A | 0.003 | <0.003 |
| Selenium | 11/09/98 | 7740 | 0.05 | 0.90 |
| Silver | 11/11/98 | 6010B | 0.05 | 1.7 |

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84115

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Released By: _____

Laboratory Supervisor

Report Date: November 12, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: October 27, 1998

Contact: Dan Krupicka
Date Received: October 29, 1998

AMERICAN
WEST
ANALYTICAL
LABORATORIES

Field Sample ID:
DIXIE CABLE/ESCALANTE MINE SAMPL/35-3152-01
DCW-2

Lab Sample ID:
L35101-21

Analytical Results

Units = mg/sample

| TOTAL METALS | Analysis Date: | Method Used: | Reporting Limit: | Amount Detected: |
|--------------|-------------------|-----------------|---------------------|---------------------|
| Arsenic | 11/09/98 | 7060A | 0.05 | 1.9 |
| Barium | 11/11/98 | 6010B | 0.05 | 1.0 |
| Cadmium | 11/11/98 | 6010B | 0.02 | 0.040 |
| Chromium | 11/11/98 | 6010B | 0.05 | <0.05 |
| Lead | 11/11/98 | 6010B | 0.3 | 0.60 |
| Mercury | 11/04/98 | 7471A | 0.003 | 0.18 |
| Selenium | 11/09/98 | 7740 | 0.05 | 3.2 |
| Silver | 11/11/98 | 6010B | 0.05 | 0.56 |

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Released By:

Laboratory Supervisor

Report Date: November 12, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: October 27, 1998

Contact: Dan Krupicka
Date Received: October 29, 1998

Field Sample ID:

Lab Sample ID:

AMERICAN WEST
DIXIE CABLE/ESCALANTE MINE SAMPL/35-3152-01
DCW-3

L35101-22

ANALYTICAL
LABORATORIES

Analytical Results

Units = mg/sample

| TOTAL METALS | <u>Analysis Date:</u> | <u>Method Used:</u> | <u>Reporting Limit:</u> | <u>Amount Detected:</u> |
|--------------|-----------------------|---------------------|-------------------------|-------------------------|
| Arsenic | 11/09/98 | 7060A | 0.05 | 3.0 |
| Barium | 11/11/98 | 6010B | 0.05 | 1.0 |
| Cadmium | 11/11/98 | 6010B | 0.02 | 0.33 |
| Chromium | 11/11/98 | 6010B | 0.05 | <0.05 |
| Lead | 11/11/98 | 6010B | 0.3 | 1.5 |
| Mercury | 11/04/98 | 7471A | 0.003 | 0.030 |
| Selenium | 11/09/98 | 7740 | 0.05 | 22. |
| Silver | 11/11/98 | 6010B | 0.05 | 9.5 |

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84115

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Released By:

Laboratory Supervisor

Report Date: November 12, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: October 27, 1998

Contact: Dan Krupicka
Date Received: October 29, 1998

AMERICAN WEST
ANALYTICAL
LABORATORIES

Field Sample ID:
DIXIE CABLE/ESCALANTE MINE SAMPL/35-3152-01
DCW-4

Lab Sample ID:
L35101-23

Analytical Results

Units = mg/sample

| TOTAL METALS | <u>Analysis Date:</u> | <u>Method Used:</u> | <u>Reporting Limit:</u> | <u>Amount Detected:</u> |
|--------------|---------------------------|-------------------------|-----------------------------|-----------------------------|
| Arsenic | 11/09/98 | 7060A | 0.05 | 8.0 |
| Barium | 11/11/98 | 6010B | 0.05 | 3.5 |
| Cadmium | 11/11/98 | 6010B | 0.02 | 0.10 |
| Chromium | 11/11/98 | 6010B | 0.05 | 0.10 |
| Lead | 11/11/98 | 6010B | 0.3 | 5.7 |
| Mercury | 11/04/98 | 7471A | 0.003 | 0.020 |
| Selenium | 11/09/98 | 7740 | 0.05 | 1.9 |
| Silver | 11/11/98 | 6010B | 0.05 | 37. |

463 West 3600 South
Salt Lake City, Utah
84115

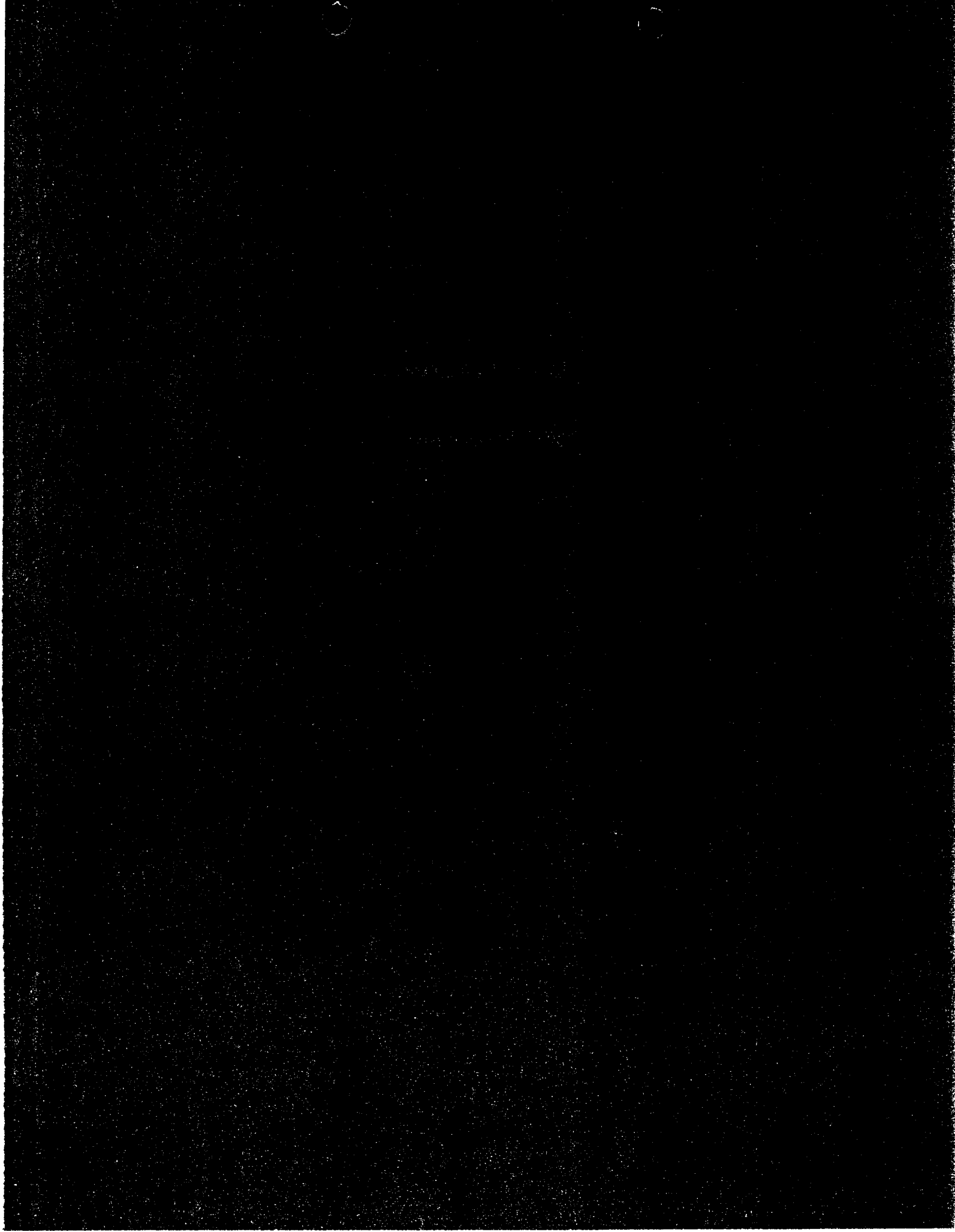
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Fax (801) 263-8687

Released By: _____

PLM
Laboratory Supervisor

Report Date: November 12, 1998

1 of 1





INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: December 15, 1998

Contact: Dan Krupicka
Date Received: December 17, 1998

Field Sample ID:
AMERICAN WEST ANALYTICAL LABORATORIES
DIXIE CABLE CONFIRMATION SAMPLING/35-315201
DCBG-3

Lab Sample ID:
L35669-1

Analytical Results

Units = mg/kg

| | TOTAL METALS | Analysis | Method | Reporting | Amount |
|--|--------------|----------|--------|-----------|-----------|
| | | Date: | Used: | Limit: | Detected: |
| 463 West 3600 South Salt Lake City, Utah 84115 (801) 263-8686 Toll Free (888) 263-8686 Fax (801) 263-8687 | Arsenic | 12/23/98 | 7060A | 0.5 | 4.7 |
| | Barium | 12/23/98 | 6010B | 0.5 | 180. |
| | Cadmium | 12/23/98 | 6010B | 0.2 | 0.40 |
| | Chromium | 12/23/98 | 6010B | 0.5 | 13. |
| | Lead | 12/23/98 | 6010B | 3.0 | 22. |
| | Mercury | 12/24/98 | 7471A | 0.04 | <0.04 |
| | Selenium | 12/23/98 | 7740 | 0.1 | <0.1 |
| | Silver | 12/23/98 | 6010B | 0.5 | <0.5 |
| | | | | | |
| | | | | | |

Released By: Paul D. [Signature]

Laboratory Supervisor

Report Date: December 30, 1998

1 of 1



INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: December 15, 1998

Contact: Dan Krupicka
Date Received: December 17, 1998

AMERICAN WEST ANALYTICAL
LABORATORIES
Field Sample ID:
DIXIE CABLE CONFIRMATION SAMPLING/35-315201
DCS2-1

Lab Sample ID:
L35669-2

Analytical Results

Units = mg/kg

| TOTAL METALS | | <u>Analysis Date:</u> | <u>Method Used:</u> | <u>Reporting Limit:</u> | <u>Amount Detected:</u> |
|--|----------|-----------------------|---------------------|-------------------------|-------------------------|
| 463 West 3600 South Salt Lake City, Utah 84115 | Arsenic | 12/23/98 | 7060A | 0.5 | 9.3 |
| | Barium | 12/23/98 | 6010B | 0.5 | 470. |
| | Cadmium | 12/23/98 | 6010B | 0.2 | 1.0 |
| | Chromium | 12/23/98 | 6010B | 0.5 | 7.5 |
| | Lead | 12/23/98 | 6010B | 3.0 | 91. |
| | Mercury | 12/24/98 | 7471A | 0.04 | <0.04 |
| | Selenium | 12/23/98 | 7740 | 0.1 | <0.1 |
| | Silver | 12/23/98 | 6010B | 0.5 | 3.5 |
| | | | | | |

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Released By: _____

Laboratory Supervisor

Report Date: December 30, 1998

1 of 1



INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: December 15, 1998

Contact: Dan Krupicka
Date Received: December 17, 1998

Field Sample ID:
AMERICAN WEST ANALYTICAL LABORATORIES
DIXIE CABLE CONFIRMATION SAMPLING/35-315201
DCS2-2

Lab Sample ID:
L35669-3

Analytical Results

Units = mg/kg

| | TOTAL METALS | Analysis | Method | Reporting | Amount |
|--|--------------|----------|--------|-----------|-----------|
| | | Date: | Used: | Limit: | Detected: |
| 463 West 3600 South Salt Lake City, Utah 84115 | Arsenic | 12/23/98 | 7060A | 0.5 | 24. |
| | Barium | 12/23/98 | 6010B | 0.5 | 840. |
| | Cadmium | 12/23/98 | 6010B | 0.2 | 3.5 |
| | Chromium | 12/23/98 | 6010B | 0.5 | 9.6 |
| | Lead | 12/23/98 | 6010B | 3.0 | 350. |
| | Mercury | 12/24/98 | 7471A | 0.04 | 0.060 |
| | Selenium | 12/23/98 | 7740 | 0.1 | 1.9 |
| | Silver | 12/23/98 | 6010B | 0.5 | 33. |
| | | | | | |

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Laboratory Supervisor

Report Date: December 30, 1998

1 of 1



INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: December 15, 1998

Contact: Dan Krupicka
Date Received: December 17, 1998

Field Sample ID:
AMERICAN WEST ANALYTICAL LABORATORIES
DIXIE CABLE CONFIRMATION SAMPLING/35-315201
DCS2-3

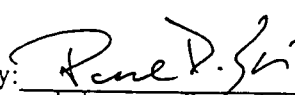
Lab Sample ID:
L35669-4

ANALYTICAL RESULTS

Units = mg/kg

| | TOTAL METALS | Analysis | Method | Reporting | Amount |
|--|--------------|----------|--------|-----------|-----------|
| | | Date: | Used: | Limit: | Detected: |
| 463 West 3600 South Salt Lake City, Utah 84115 (801) 263-8686 Toll Free (888) 263-8686 Fax (801) 263-8687 | Arsenic | 12/23/98 | 7060A | 0.5 | 26. |
| | Barium | 12/23/98 | 6010B | 0.5 | 750. |
| | Cadmium | 12/23/98 | 6010B | 0.2 | 5.6 |
| | Chromium | 12/23/98 | 6010B | 0.5 | 10. |
| | Lead | 12/23/98 | 6010B | 3.0 | 330. |
| | Mercury | 12/24/98 | 7471A | 0.04 | 0.050 |
| | Selenium | 12/23/98 | 7740 | 0.1 | < 0.1 |
| | Silver | 12/23/98 | 6010B | 0.5 | 7.2 |
| | | | | | |

Released By:


Laboratory Supervisor

Report Date: December 30, 1998

1 of 1



INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: December 15, 1998

Contact: Dan Krupicka
Date Received: December 17, 1998

AMERICAN
WEST

ANALYTICAL
LABORATORIES

Field Sample ID:
DIXIE CABLE CONFIRMATION SAMPLING/35-315201
DCS2-4

Lab Sample ID:
L35669-5

Analytical Results

Units = mg/kg

| TOTAL METALS | | <u>Analysis Date:</u> | <u>Method Used:</u> | <u>Reporting Limit:</u> | <u>Amount Detected:</u> |
|--|----------|---------------------------|-------------------------|-----------------------------|-----------------------------|
| 463 West 3600 South Salt Lake City, Utah 84115 | Arsenic | 12/23/98 | 7060A | 0.5 | 21. |
| | Barium | 12/23/98 | 6010B | 0.5 | 1100. |
| | Cadmium | 12/23/98 | 6010B | 0.2 | 2.6 |
| | Chromium | 12/23/98 | 6010B | 0.5 | 9.9 |
| | Lead | 12/23/98 | 6010B | 3.0 | 280. |
| | Mercury | 12/24/98 | 7471A | 0.04 | 0.10 |
| | Selenium | 12/23/98 | 7740 | 0.1 | 0.20 |
| | Silver | 12/23/98 | 6010B | 0.5 | 5.8 |
| | | | | | |

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Laboratory Supervisor

Report Date: December 30, 1998

1 of 1



INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: December 15, 1998

Contact: Dan Krupicka
Date Received: December 17, 1998

Field Sample ID:
AMERICAN WEST ANALYTICAL LABORATORIES
DIXIE CABLE CONFIRMATION SAMPLING/35-315201
DCS2-5

Lab Sample ID:
L35669-6

Analytical Results

Units = mg/kg

| TOTAL METALS | | <u>Analysis Date:</u> | <u>Method Used:</u> | <u>Reporting Limit:</u> | <u>Amount Detected:</u> |
|--|----------|-----------------------|---------------------|-------------------------|-------------------------|
| 463 West 3600 South Salt Lake City, Utah 84115 | Arsenic | 12/23/98 | 7060A | 0.5 | 29. |
| | Barium | 12/23/98 | 6010B | 0.5 | 930. |
| | Cadmium | 12/23/98 | 6010B | 0.2 | 3.0 |
| | Chromium | 12/23/98 | 6010B | 0.5 | 14. |
| | Lead | 12/23/98 | 6010B | 3.0 | 390. |
| | Mercury | 12/24/98 | 7471A | 0.04 | <0.04 |
| | Selenium | 12/23/98 | 7740 | 0.1 | <0.1 |
| | Silver | 12/23/98 | 6010B | 0.5 | 12. |

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Released By: Paul D. [Signature]
Laboratory Supervisor

Report Date: December 30, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: December 15, 1998

Contact: Dan Krupicka
Date Received: December 17, 1998

Field Sample ID:
AMERICAN WEST ANALYTICAL LABORATORIES
DIXIE CABLE CONFIRMATION SAMPLING/35-315201
DCS2-6

Lab Sample ID:
L35669-7

Analytical Results

Units = mg/kg

| TOTAL METALS | | <u>Analysis Date:</u> | <u>Method Used:</u> | <u>Reporting Limit:</u> | <u>Amount Detected:</u> |
|--|----------|-----------------------|---------------------|-------------------------|-------------------------|
| 463 West 3600 South Salt Lake City, Utah 84115 | Arsenic | 12/23/98 | 7060A | 0.5 | 35. |
| | Barium | 12/23/98 | 6010B | 0.5 | 790. |
| | Cadmium | 12/23/98 | 6010B | 0.2 | 5.9 |
| | Chromium | 12/23/98 | 6010B | 0.5 | 8.9 |
| | Lead | 12/23/98 | 6010B | 3.0 | 440. |
| | Mercury | 12/24/98 | 7471A | 0.04 | <0.04 |
| | Selenium | 12/23/98 | 7740 | 0.1 | 0.20 |
| | Silver | 12/23/98 | 6010B | 0.5 | 10. |

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Released By:

Laboratory Supervisor

Report Date: December 30, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: December 15, 1998

Contact: Dan Krupicka
Date Received: December 17, 1998

Field Sample ID:
AMERICAN WEST ANALYTICAL LABORATORIES
DIXIE CABLE CONFIRMATION SAMPLING/35-315201
DCS2-7

Lab Sample ID:
L35669-8

Analytical Results

Units = mg/kg

| TOTAL METALS | | <u>Analysis Date:</u> | <u>Method Used:</u> | <u>Reporting Limit:</u> | <u>Amount Detected:</u> |
|--|----------|-----------------------|---------------------|-------------------------|-------------------------|
| 463 West 3600 South Salt Lake City, Utah 84115 | Arsenic | 12/23/98 | 7060A | 0.5 | 2.6 |
| | Barium | 12/23/98 | 6010B | 0.5 | 250. |
| | Cadmium | 12/23/98 | 6010B | 0.2 | 0.30 |
| | Chromium | 12/23/98 | 6010B | 0.5 | 8.2 |
| | Lead | 12/23/98 | 6010B | 3.0 | 9.0 |
| | Mercury | 12/24/98 | 7471A | 0.04 | <0.04 |
| | Selenium | 12/23/98 | 7740 | 0.1 | <0.1 |
| | Silver | 12/23/98 | 6010B | 0.5 | 0.60 |
| | | | | | |

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Laboratory Supervisor

Report Date: December 30, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: December 15, 1998

Contact: Dan Krupicka
Date Received: December 17, 1998

Field Sample ID:
AMERICAN WEST ANALYTICAL LABORATORIES
DIXIE CABLE CONFIRMATION SAMPLING/35-315201
DCS2-8

Lab Sample ID:
L35669-9

Analytical Results

Units = mg/kg

| TOTAL METALS | | <u>Analysis Date:</u> | <u>Method Used:</u> | <u>Reporting Limit:</u> | <u>Amount Detected:</u> |
|--|----------|-----------------------|---------------------|-------------------------|-------------------------|
| 463 West 3600 South Salt Lake City, Utah 84115 | Arsenic | 12/23/98 | 7060A | 0.5 | 100. |
| | Barium | 12/23/98 | 6010B | 0.5 | 1500. |
| | Cadmium | 12/23/98 | 6010B | 0.2 | 10. |
| | Chromium | 12/23/98 | 6010B | 0.5 | 12. |
| | Lead | 12/23/98 | 6010B | 3.0 | 1600. |
| | Mercury | 12/24/98 | 7471A | 0.04 | 0.080 |
| | Selenium | 12/23/98 | 7740 | 0.1 | <0.1 |
| | Silver | 12/23/98 | 6010B | 0.5 | 18. |

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Released By:


Laboratory Supervisor

Report Date: December 30, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: December 15, 1998

Contact: Dan Krupicka
Date Received: December 17, 1998

AMERICAN
WEST
ANALYTICAL
LABORATORIES

Field Sample ID:
DIXIE CABLE CONFIRMATION SAMPLING/35-315201
DCBG-3

Lab Sample ID:
L35669-1

Analytical Results

Units = mg/kg

| | <u>OTHER CHEMISTRIES</u> | <u>Analysis Date:</u> | <u>Method Used:</u> | <u>Reporting Limit:</u> | <u>Amount Detected:</u> |
|--|--------------------------|-----------------------|---------------------|-------------------------|-------------------------|
| 463 West 3600 South Salt Lake City, Utah 84115 | Cyanide | 12/23/98 | 4500-CN C | 0.05 | <0.05 |

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Released By: _____

Paul D. G.
Laboratory Supervisor

Report Date: December 28, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: December 15, 1998

Contact: Dan Krupicka
Date Received: December 17, 1998

AMERICAN
WEST
ANALYTICAL
LABORATORIES

Field Sample ID:
DIXIE CABLE CONFIRMATION SAMPLING/35-315201
DCS2-1

Lab Sample ID:
L35669-2

Analytical Results

Units = mg/kg

OTHER CHEMISTRIES

Analysis
Date:

Method
Used:

Reporting
Limit:

Amount
Detected:

Cyanide

12/23/98

4500-CN C

0.05

0.20

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Salt Lake City, Utah
84115

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Laboratory Supervisor

Report Date: December 28, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: December 15, 1998

Contact: Dan Krupicka
Date Received: December 17, 1998

AMERICAN
WEST
ANALYTICAL
LABORATORIES

Field Sample ID:
DIXIE CABLE CONFIRMATION SAMPLING/35-315201
DCS2-2

Lab Sample ID:
L35669-3

Analytical Results

Units = mg/kg

OTHER CHEMISTRIES

Cyanide

Analysis
Date:

12/23/98

Method
Used:

4500-CN C

Reporting
Limit:

0.05

Amount
Detected:

5.8

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Laboratory Supervisor

Report Date: December 28, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: December 15, 1998

Contact: Dan Krupicka
Date Received: December 17, 1998

AMERICAN WEST ANALYTICAL LABORATORIES
Field Sample ID:
DIXIE CABLE CONFIRMATION SAMPLING/35-315201
DCS2-3

Lab Sample ID:
L35669-4

Analytical Results

Units = mg/kg

| | <u>OTHER CHEMISTRIES</u> | <u>Analysis Date:</u> | <u>Method Used:</u> | <u>Reporting Limit:</u> | <u>Amount Detected:</u> |
|--|--------------------------|-----------------------|---------------------|-------------------------|-------------------------|
| 463 West 3600 South Salt Lake City, Utah 84115 | Cyanide | 12/23/98 | 4500-CN C | 0.05 | 0.49 |

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Released By: Paul D. Jr.

Laboratory Supervisor

Report Date: December 28, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: December 15, 1998

Contact: Dan Krupicka
Date Received: December 17, 1998

AMERICAN WEST ANALYTICAL LABORATORIES
Field Sample ID: DIXIE CABLE CONFIRMATION SAMPLING/35-315201
DCS2-4

Lab Sample ID:
L35669-5

Analytical Results

Units = mg/kg

| OTHER CHEMISTRIES | <u>Analysis Date:</u> | <u>Method Used:</u> | <u>Reporting Limit:</u> | <u>Amount Detected:</u> |
|-------------------|-----------------------|---------------------|-------------------------|-------------------------|
| Cyanide | 12/23/98 | 4500-CN C | 0.05 | 0.56 |

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Laboratory Supervisor

Report Date: December 28, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: December 15, 1998

Contact: Dan Krupicka
Date Received: December 17, 1998

AMERICAN
WEST
ANALYTICAL
LABORATORIES

Field Sample ID:
DIXIE CABLE CONFIRMATION SAMPLING/35-315201
DCS2-5

Lab Sample ID:
L35669-6

Analytical Results

Units = mg/kg

| | <u>OTHER CHEMISTRIES</u> | <u>Analysis Date:</u> | <u>Method Used:</u> | <u>Reporting Limit:</u> | <u>Amount Detected:</u> |
|--|--------------------------|-----------------------|---------------------|-------------------------|-------------------------|
| 463 West 3600 South Salt Lake City, Utah 84115 | Cyanide | 12/23/98 | 4500-CN C | 0.05 | 1.1 |

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Released By: Pam D. Fair

Laboratory Supervisor

Report Date: December 28, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: December 15, 1998

Contact: Dan Krupicka
Date Received: December 17, 1998

AMERICAN WEST ANALYTICAL LABORATORIES
Field Sample ID: DIXIE CABLE CONFIRMATION SAMPLING/35-315201
DCS2-6

Lab Sample ID: L35669-7

Analytical Results

Units = mg/kg

OTHER CHEMISTRIES

Analysis
Date:

Method
Used:

Reporting
Limit:

Amount
Detected:

463 West 3600 South
Salt Lake City, Utah
84115

Cyanide

12/23/98

4500-CN C

0.05

0.88

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Released By: *Dan D. Krupicka*

Laboratory Supervisor

Report Date: December 28, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: December 15, 1998

Contact: Dan Krupicka
Date Received: December 17, 1998

AMERICAN WEST
ANALYTICAL
LABORATORIES

Field Sample ID:
DIXIE CABLE CONFIRMATION SAMPLING/35-315201
DCS2-7

Lab Sample ID:
L35669-8

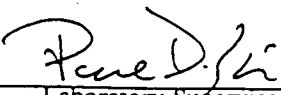
Analytical Results

Units = mg/kg

| | <u>OTHER CHEMISTRIES</u> | <u>Analysis Date:</u> | <u>Method Used:</u> | <u>Reporting Limit:</u> | <u>Amount Detected:</u> |
|--|--------------------------|-----------------------|---------------------|-------------------------|-------------------------|
| 463 West 3600 South Salt Lake City, Utah 84115 | Cyanide | 12/23/98 | 4500-CN C | 0.05 | <0.05 |

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Laboratory Supervisor

Report Date: December 28, 1998

1 of 1



INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: December 15, 1998

Contact: Dan Krupicka
Date Received: December 17, 1998

AMERICAN
WEST
ANALYTICAL
LABORATORIES

Field Sample ID:
DIXIE CABLE CONFIRMATION SAMPLING/35-315201
DCS2-8

Lab Sample ID:
L35669-9

Analytical Results

Units = mg/kg

OTHER CHEMISTRIES

Cyanide

Analysis
Date:

12/23/98

Method
Used:

4500-CN C

Reporting
Limit:

0.05

Amount
Detected:

11.

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Released By: Paul D. [Signature]

Laboratory Supervisor

Report Date: December 28, 1998

1 of 1



INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: December 15, 1998

Contact: Dan Krupicka
Date Received: December 17, 1998

Field Sample ID:
AMERICAN DIXIE CABLE CONFIRMATION SAMPLING/35-315201
WEST DCW2-1

Lab Sample ID:
L35669-10

ANALYTICAL
LABORATORIES

Analytical Results

Units = mg/sample

OTHER CHEMISTRIES

Cyanide

Analysis
Date:

12/23/98

Method
Used:

4500-CN C

Reporting
Limit:

0.005

Amount
Detected:

1.2

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Released By: Paul D. Sri

Laboratory Supervisor

Report Date: December 28, 1998

1 of 1



INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: December 15, 1998

Contact: Dan Krupicka
Date Received: December 17, 1998

Field Sample ID:
AMERICAN DIXIE CABLE CONFIRMATION SAMPLING/35-315201
WEST DCW2-2

Lab Sample ID:
L35669-11

ANALYTICAL
LABORATORIES **Analytical Results**
Units = mg/sample

OTHER CHEMISTRIES

Analysis
Date:

Method
Used:

Reporting
Limit:

Amount
Detected:

Cyanide

12/23/98


4500-CN C

0.005

4.7

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Released By: 

Laboratory Supervisor

Report Date: December 28, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: December 15, 1998

Contact: Dan Krupicka
Date Received: December 17, 1998

Field Sample ID:
AMERICAN DIXIE CABLE CONFIRMATION SAMPLING/35-315201
WEST DCW2-3

Lab Sample ID:
L35669-12

ANALYTICAL
LABORATORIES

Analytical Results

Units = mg/sample

OTHER CHEMISTRIES

Cyanide

Analysis
Date:

12/23/98

Method
Used:

4500-CN C

Reporting
Limit:

0.005

Amount
Detected:

69.

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Released By: Paul D. Smith

Laboratory Supervisor

Report Date: December 28, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: December 15, 1998

Contact: Dan Krupicka
Date Received: December 17, 1998

Field Sample ID:
AMERICAN DIXIE CABLE CONFIRMATION SAMPLING/35-315201
WEST DCW2-4

Lab Sample ID:
L35669-13

ANALYTICAL
LABORATORIES **Analytical Results**
Units = mg/sample

| | <u>OTHER CHEMISTRIES</u> | <u>Analysis Date:</u> | <u>Method Used:</u> | <u>Reporting Limit:</u> | <u>Amount Detected:</u> |
|--|--------------------------|-----------------------|---------------------|-------------------------|-------------------------|
| 463 West 3600 South Salt Lake City, Utah 84115 | Cyanide | 12/23/98 | 4500-CN C | 0.005 | 6.2 |

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Report Date: December 28, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: December 15, 1998

Contact: Dan Krupicka
Date Received: December 17, 1998

Field Sample ID:
AMERICAN DIXIE CABLE CONFIRMATION SAMPLING/35-315201
WEST DCW2-5

Lab Sample ID:
L35669-14

ANALYTICAL
LABORATORIES **Analytical Results**
Units = mg/sample

OTHER CHEMISTRIES

Analysis
Date:

Method
Used:

Reporting
Limit:

Amount
Detected:

Cyanide

12/23/98

4500-CN C

0.005

5.5

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Released By: Paul D. Jiri
Laboratory Supervisor

Report Date: December 28, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: December 15, 1998

Contact: Dan Krupicka
Date Received: December 17, 1998

AMERICAN
WEST
ANALYTICAL
LABORATORIES

Field Sample ID:
DIXIE CABLE CONFIRMATION SAMPLING/35-315201
DCW-BLANK 2

Lab Sample ID:
L35669-15

Analytical Results

Units = mg/sample

OTHER CHEMISTRIES

Cyanide

Analysis
Date:

12/23/98

Method
Used:

4500-CN C

Reporting
Limit:

0.005


Amount
Detected:

< 0.005

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Released By: _____


Laboratory Supervisor

Report Date: December 28, 1998

1 of 1



INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: December 15, 1998

Contact: Dan Krupicka
Date Received: December 17, 1998

AMERICAN WEST ANALYTICAL LABORATORIES
Field Sample ID: DIXIE CABLE CONFIRMATION SAMPLING/35-315201
DCW2-1


Lab Sample ID:
L35669-10

Analytical Results

Units = mg/sample

| TOTAL METALS | | <u>Analysis Date:</u> | <u>Method Used:</u> | <u>Reporting Limit:</u> | <u>Amount Detected:</u> |
|--|----------|-----------------------|---------------------|-------------------------|-------------------------|
| 463 West 3600 South Salt Lake City, Utah 84115 | Arsenic | 12/28/98 | 7060A | 0.005 | 0.0090 |
| | Barium | 12/28/98 | 6010B | 0.002 | 0.056 |
| | Cadmium | 12/28/98 | 6010B | 0.004 | 0.011 |
| | Chromium | 12/28/98 | 6010B | 0.01 | <0.01 |
| | Lead | 12/28/98 | 6010B | 0.05 | 0.19 |
| | Mercury | 12/28/98 | 7471A | 0.0002 | 0.0013 |
| | Selenium | 12/28/98 | 7740 | 0.005 | 0.0060 |
| | Silver | 12/28/98 | 6010B | 0.01 | 1.8 |

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Released By: 
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Report Date: December 30, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: December 15, 1998

Contact: Dan Krupicka
Date Received: December 17, 1998

Field Sample ID:
AMERICAN WEST DCW2-2
DIXIE CABLE CONFIRMATION SAMPLING/35-315201

Lab Sample ID:
L35669-11

ANALYTICAL
LABORATORIES
Analytical Results
Units = mg/sample

| TOTAL METALS | | <u>Analysis Date:</u> | <u>Method Used:</u> | <u>Reporting Limit:</u> | <u>Amount Detected:</u> |
|--|----------|---------------------------|-------------------------|-----------------------------|-----------------------------|
| 463 West 3600 South Salt Lake City, Utah 84115 | Arsenic | 12/28/98 | 7060A | 0.005 | 0.012 |
| | Barium | 12/28/98 | 6010B | 0.002 | 0.22 |
| | Cadmium | 12/28/98 | 6010B | 0.004 | 0.028 |
| | Chromium | 12/28/98 | 6010B | 0.01 | <0.01 |
| | Lead | 12/28/98 | 6010B | 0.05 | 0.27 |
| | Mercury | 12/28/98 | 7471A | 0.0002 | 0.0015 |
| | Selenium | 12/28/98 | 7740 | 0.005 | 0.055 |
| | Silver | 12/28/98 | 6010B | 0.01 | 2.9 |

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Released By: Paul D. [Signature]

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Report Date: December 30, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: December 15, 1998

Contact: Dan Krupicka
Date Received: December 17, 1998

AMERICAN WEST ANALYTICAL LABORATORIES
Field Sample ID:
DIXIE CABLE CONFIRMATION SAMPLING/35-315201
DCW2-3

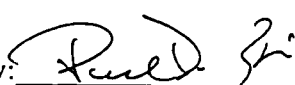
Lab Sample ID:
L35669-12

Analytical Results

Units = mg/sample

| TOTAL METALS | | <u>Analysis Date:</u> | <u>Method Used:</u> | <u>Reporting Limit:</u> | <u>Amount Detected:</u> |
|--|----------|-----------------------|---------------------|-------------------------|-------------------------|
| 463 West 3600 South Salt Lake City, Utah 84115 | Arsenic | 12/28/98 | 7060A | 0.005 | 0.097 |
| | Barium | 12/28/98 | 6010B | 0.002 | 0.16 |
| | Cadmium | 12/28/98 | 6010B | 0.004 | 0.068 |
| | Chromium | 12/28/98 | 6010B | 0.01 | 0.030 |
| | Lead | 12/28/98 | 6010B | 0.05 | 3.0 |
| | Mercury | 12/28/98 | 7471A | 0.0002 | 0.0088 |
| | Selenium | 12/28/98 | 7740 | 0.005 | 0.058 |
| | Silver | 12/28/98 | 6010B | 0.01 | 18. |

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Laboratory Supervisor

Report Date: December 30, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: December 15, 1998

Contact: Dan Krupicka
Date Received: December 17, 1998

Field Sample ID:
AMERICAN DIXIE CABLE CONFIRMATION SAMPLING/35-315201
WEST DCW2-4

Lab Sample ID:
L35669-13

ANALYTICAL
LABORATORIES

Analytical Results

Units = mg/sample

| | | <u>Analysis</u> <u>Date:</u> | <u>Method</u> <u>Used:</u> | <u>Reporting</u> <u>Limit:</u> | <u>Amount</u> <u>Detected:</u> |
|--|----------|---------------------------------|-------------------------------|-----------------------------------|-----------------------------------|
| TOTAL METALS | | | | | |
| 463 West 3600 South Salt Lake City, Utah 84115 | Arsenic | 12/28/98 | 7060A | 0.005 | < 0.005 |
| | Barium | 12/28/98 | 6010B | 0.002 | 0.038 |
| | Cadmium | 12/28/98 | 6010B | 0.004 | < 0.004 |
| | Chromium | 12/28/98 | 6010B | 0.01 | < 0.01 |
| | Lead | 12/28/98 | 6010B | 0.05 | < 0.05 |
| | Mercury | 12/28/98 | 7471A | 0.0002 | < 0.0002 |
| | Selenium | 12/28/98 | 7740 | 0.005 | < 0.005 |
| | Silver | 12/28/98 | 6010B | 0.01 | 0.010 |

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Released By: Rue Dyer

Laboratory Supervisor

Report Date: December 30, 1998

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INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: December 15, 1998

Contact: Dan Krupicka
Date Received: December 17, 1998

Field Sample ID:
AMERICAN DIXIE CABLE CONFIRMATION SAMPLING/35-315201
WEST DCW2-5
ANALYTICAL

Lab Sample ID:
L35669-14

LABORATORIES **Analytical Results**

Units = mg/sample

| | <u>Analysis Date:</u> | <u>Method Used:</u> | <u>Reporting Limit:</u> | <u>Amount Detected:</u> |
|---------------------|---------------------------|-------------------------|-----------------------------|-----------------------------|
| TOTAL METALS | | | | |
| Arsenic | 12/28/98 | 7060A | 0.005 | 0.026 |
| Barium | 12/28/98 | 6010B | 0.002 | 0.41 |
| Cadmium | 12/28/98 | 6010B | 0.004 | 0.70 |
| Chromium | 12/28/98 | 6010B | 0.01 | <0.01 |
| Lead | 12/28/98 | 6010B | 0.05 | 0.35 |
| Mercury | 12/28/98 | 7471A | 0.0002 | <0.0002 |
| Selenium | 12/28/98 | 7740 | 0.005 | <0.005 |
| Silver | 12/28/98 | 6010B | 0.01 | 1.3 |

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84115

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Released By: Paul D. Jiri

Laboratory Supervisor

Report Date: December 30, 1998

1 of 1



INORGANIC ANALYSIS REPORT

Client: Kleinfelder-St. George
Date Sampled: December 15, 1998

Contact: Dan Krupicka
Date Received: December 17, 1998

Field Sample ID:
AMERICAN DIXIE CABLE CONFIRMATION SAMPLING/35-315201
WEST DCW-BLANK 2
ANALYTICAL

Lab Sample ID:
L35669-15

LABORATORIES **Analytical Results**

Units = mg/sample

| TOTAL METALS | | <u>Analysis Date:</u> | <u>Method Used:</u> | <u>Reporting Limit:</u> | <u>Amount Detected:</u> |
|--|----------|-----------------------|---------------------|-------------------------|-------------------------|
| 463 West 3600 South Salt Lake City, Utah 84115 | Arsenic | 12/28/98 | 7060A | 0.005 | <0.005 |
| | Barium | 12/28/98 | 6010B | 0.002 | 0.0040 |
| | Cadmium | 12/28/98 | 6010B | 0.004 | <0.004 |
| | Chromium | 12/28/98 | 6010B | 0.01 | <0.01 |
| | Lead | 12/28/98 | 6010B | 0.05 | <0.05 |
| | Mercury | 12/28/98 | 7471A | 0.0002 | <0.0002 |
| | Selenium | 12/28/98 | 7740 | 0.005 | <0.005 |
| | Silver | 12/28/98 | 6010B | 0.01 | <0.01 |

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Released By: Paul D. Sci

Laboratory Supervisor

Report Date: December 30, 1998

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QUALITY CONTROL REPORT

Client: Kleinfelder-St. George
Lab Sample ID.: L35669

QC Sample #: L35669-15

Matrix: Wipes

Quality Control Results

| Compound | Original Concentration | Sample Dup Recovered | % Difference |
|----------------|---------------------------|-------------------------|-----------------|
| Cyanide, Total | ND | ND | N/A |

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Paul D. Li

Laboratory Supervisor

Report Date 12/31/98

1 of 1



QUALITY CONTROL REPORT

Client: Kleinfelder-St. George
Lab Sample ID.: L35669

QC Sample #: L35669-1

Matrix: Solid

Quality Control Results

| Compound | Original Concentration | Spike Added | % Spike Recovered | % Spike Dup Recovery | Relative % Difference | % Recovery Limits | RPD Limits | % LCS Recovery | % LCS Limits |
|----------|------------------------|-------------|-------------------|----------------------|-----------------------|-------------------|------------|----------------|--------------|
| Silver | ND | 100. | 100. | 103. | 3.0 | 75. to 125. | 20. | 102. | 75. to 125. |
| Barium | 180. | 100. | 119. | 120. | 0.9 | 75. to 125. | 20. | 101. | 75. to 125. |
| Cadmium | 0.4 | 100. | 102. | 103. | 1.0 | 75. to 125. | 20. | 101. | 75. to 125. |
| Chromium | 13. | 100. | 104. | 105. | 1.0 | 75. to 125. | 20. | 102. | 75. to 125. |
| Lead | 22. | 100. | 105. | 102. | 2.8 | 75. to 125. | 20. | 101. | 75. to 125. |

ND= Not Detected.

Released by: Paul D. Li
Laboratory Supervisor

Report Date 12/31/98

1 of 1

A

QUALITY CONTROL REPORT

Client: Kleinfelder-St. George
Lab Sample ID.: L35669

QC Sample #: L35669-1 Matrix: Solid

Quality Control Results

| Compound | Original Concentration | Spike Added | % Spike Recovered | % Spike Dup Recovery | Relative % Difference | % Recovery Limits | RPD Limits | % LCS Recovery | % LCS Limits |
|----------|------------------------|-------------|-------------------|----------------------|-----------------------|-------------------|------------|----------------|--------------|
| Arsenic | 4.7 | 5.0 | 124. * | 124. * | 0.0 | 80. to 120. | 20. | 92. | 85. to 115. |
| Selenium | ND | 5.0 | 88. | 84. | 4.7 | 80. to 120. | 20. | 92. | 85. to 115. |

ND= Not Detected.

* Spike recovery indicates matrix interference. Matrix interference confirmed by interference test. The method is in control as indicated by the laboratory control sample (LCS).

Released by:

Paul D. Pi

Laboratory Supervisor

Report Date 12/31/98

1 of 1

QC III Master (WC)

A

QUALITY CONTROL REPORT

Client: Kleinfelder-St. George
Lab Sample ID.: L35669

QC Sample #: L35669-8

Matrix: Solid

Quality Control Results

| Compound | Original Concentration | Spike Added | % Spike Recovered | % Spike Dup Recovery | Relative % Difference | % Recovery Limits | RPD Limits | % LCS Recovery | % LCS Limits |
|----------|---------------------------|----------------|----------------------|-------------------------|--------------------------|----------------------|---------------|-------------------|-----------------|
| Mercury | ND | 0.2 | 92. | 106. | 14. | 80. to 120. | 24. | 100. | 80. to 120. |

ND= Not Detected.

Released by:

Paul D. Lin

Laboratory Supervisor

Report Date 12/31/98

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A

QUALITY CONTROL REPORT

Client: Kleinfelder-St. George
Lab Sample ID.: L35669

QC Sample #: L35669-14

Matrix: Wipes

Quality Control Results

| Compound | Original Concentration | Spike Added | % Spike Recovered | % Spike Dup Recovery | Relative % Difference | % Recovery Limits | RPD Limits | % LCS Recovery | % LCS Limits |
|----------|------------------------|-------------|-------------------|----------------------|-----------------------|-------------------|------------|----------------|--------------|
| Arsenic | 0.03 | 0.05 | 102. | 95. | 7.1 | 80. to 120. | 20. | 88. | 85. to 115. |
| Selenium | ND | 0.05 | 109. | 107. | 1.9 | 80. to 120. | 20. | 89. | 85. to 115. |

ND= Not Detected.

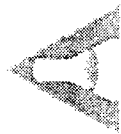
Released by:

Rene D. Lin

Laboratory Supervisor

Report Date 12/31/98

1 of 1



QUALITY CONTROL REPORT

Client: Kleinfelder-St. George
Lab Sample ID.: L35669

QC Sample #: L35669-14

Matrix: Wipes

Quality Control Results

| Compound | Original Concentration | Spike Added | % Spike Recovered | % Spike Dup Recovery | Relative % Difference | % Recovery Limits | RPD Limits | % LCS Recovery | % LCS Limits |
|----------|------------------------|-------------|-------------------|----------------------|-----------------------|-------------------|------------|----------------|--------------|
| Silver | 1.8 | 1.0 | -8.0 * | -43. * | 137. * | 75. to 125. | 20. | 94. | 75. to 125. |
| Barium | 0.59 | 1.0 | 157. * | 98. | 46. * | 75. to 125. | 20. | 99. | 75. to 125. |
| Cadmium | 0.011 | 1.0 | 93. | 96. | 4.0 | 75. to 125. | 20. | 100. | 75. to 125. |
| Chromium | ND | 1.0 | 101. | 103. | 2.0 | 75. to 125. | 20. | 100. | 75. to 125. |
| Lead | 0.51 | 1.0 | 108. | 82. | 27. * | 75. to 125. | 20. | 103. | 75. to 125. |

ND= Not Detected.

* Poor spike recoveries due to suspected sample inhomogeneity. Interference tests within acceptance limits.

Released by: Pam D. Li
Laboratory Supervisor

Report Date 12/31/98

A

QUALITY CONTROL REPORT

Client: Kleinfelder-St. George
Lab Sample ID.: L35669

QC Sample #: L35697-1

Matrix: Solid

Quality Control Results

| Compound | Original Concentration | Spike Add'd | % Spike Recovered | % Spike Dup Recovery | Relative % Difference | % Recovery Limits | RPD Limits | % LCS Recovery | % LCS Limits |
|----------------|---------------------------|----------------|----------------------|-------------------------|--------------------------|----------------------|---------------|-------------------|-----------------|
| Cyanide, Total | ND | 0.1 | 120. | 121. | -0.8 | 78. to 128. | -22. to 24. | 104. | 92. to 112. |

ND= Not Detected.

Released by: Punch. J. Jr.

Laboratory Supervisor

Report Date 12/31/98

QC III Batch ID Master

1 of 1



KLEINFELDER

[illegible]

M-60

White - Sampler

Canada

Turn Copy To Shinner

Pink - Lab Coord

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